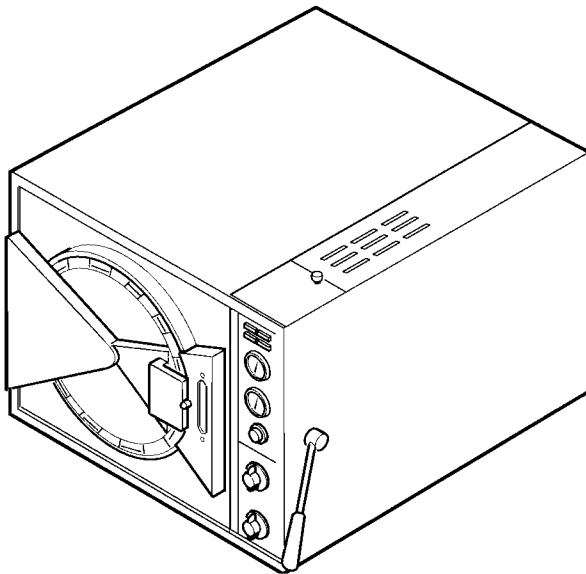


Magna-Clave

Use & Care Manual



Pelton & Crane
A DCI COMPANY

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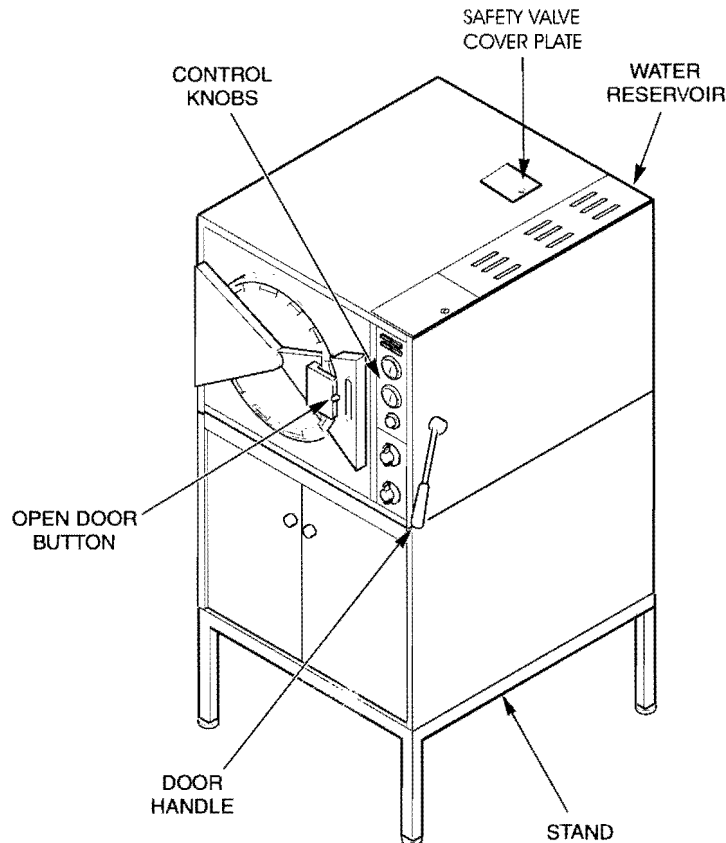
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VISUAL INDEX



SECTION 1 FAMILIARIZATION

I. SAFETY FEATURES

The Magna-Clave design offers several safety features for your protection.

A. Door Clamp Ring

A patented door clamp ring provides maximum safety by locking the entire rim of door. When activated by the door handle, the door clamp ring expands in diameter, allowing the door to open.

B. Open Door Button

The open door button energizes the door interlock solenoid. It must be depressed before moving the door handle up into the open position. The button is operative only when the **Open Door** light is illuminated.

C. Door Handle

When door handle is in down position, the door is locked and the rim is completely sealed. When door handle is in up position, the door clamp ring is expanded. To open door, move door handle to upward position by the following method:

- Ensure that **Power On** light is illuminated
- **Open Door** light must be illuminated
- Depress **Open Door** button

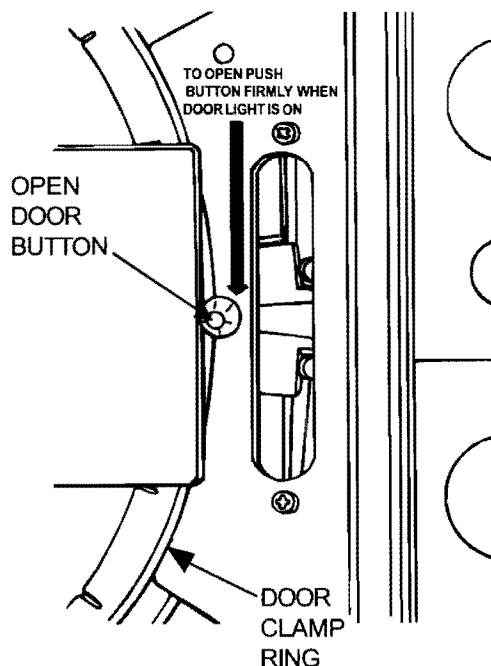
WARNING: Do not attempt to move door handle upward until:

- **Open Door** light is illuminated
- Pressure gauge indicates '0'
- Function is in **Vent** or **Fill** position

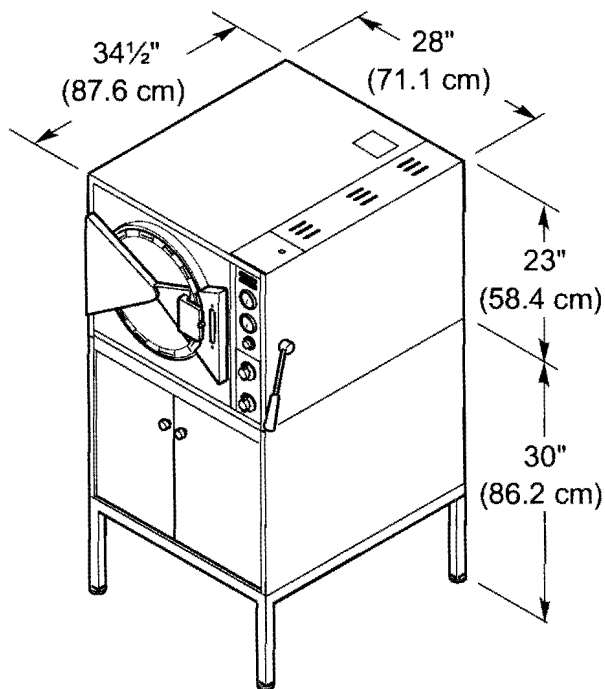
D. Relay Control

The relay controls supply power to the main heaters only when proper start up procedures have been followed. It senses when the "Door Open" light is on and power is made available to the main heaters for normal operation.

- **Overheat protector:** If unit trips the overheat protector, the main heater is removed by relay controls and cannot be restored without going through the start-up procedure. This insures when the sterilization cycle is interrupted by an out of water condition or similar failure, the Magnaclave will remain off until the operator restarts the cycle.
- **Main Heater:** The timer activates the relay controls at the end of the cycle. Power is removed from the main heaters and the buzzer notifies the operator that the sterilization cycle is completed. The buzzer will continue to sound until the operator turns unit to vent. With the heater power removed the Magnaclave will start cooling down. For proper drying of the contents, the unit should be vented within 15 minutes of the completion of the cycle.
- **Fail Safe Operation:** In the event of a power failure, the power to the main heaters is removed by the relay control if there is an interruption to the incoming power. The heater will remain off until operator restarts the unit.



SECTION 1 FAMILIARIZATION



II. PHYSICAL CHARACTERISTICS

Exterior:

The overall dimensions are 28" (71.1 cm) wide X 34 1/2" (87.6 cm) deep X 53" (134.6 cm) high (with stand), 23" (58.4 cm) high (without stand).

Interior:

The overall chamber shall measure 30" (76.2 cm) deep X 16" (40.6 cm) diameter.

Installation Requirements:

A space 46" (116.8 cm) wide X 54 1/2" (138.4 cm) deep X 65" (165.1 cm) high (with stand), 35" (88.9 cm) high (without stand) should be provided to properly operate and maintain the sterilizer.

III. ELECTRICAL REQUIREMENTS

The Magna-Clave requires 5000 watts at 208 volts or 220-240 volts, 50-60 cycles, single phase. Line voltage must be specified when ordering. An outlet box with conduit knockouts, grounding screw and a cover is provided on the rear of the sterilizer. This outlet box is used for connecting a power line to the Magna-Clave.

IV. CONTROLS AND INDICATORS

A. Indicator Lights

1. **Power On** - The **Power On** light indicates that electrical power is being supplied to the autoclave. It is illuminated when the **Function** control is in the **Fill**, **Sterilize** or **Vent** position. When the **Power On** light is illuminated, the wall heaters of the autoclave are energized to maintain a warm, standby condition.
2. **Heat On** - The **Heat On** light indicates that electrical power is being supplied to the main heating elements which generate steam inside the boiler. When the **Function** control is in the **Sterilize** position and the door handle in the down position (door locked), the **Heat On** light will be illuminated and the main heating elements are energized. The light remains illuminated until the steam temperature inside the chamber reaches the setting on the **Temperature** control. The main heating elements will cycle off-and-on to maintain the desired temperature.
3. **Sterile** - The **Sterile** light is illuminated when: the **Function** control is in the **Sterile** position, the desired temperature is reached and the **Time** control indicates "0." At the beginning of the cycle, the **Time** control should be set at the desired time for sterilization. When the **Time** control turns to "0," the **Sterile** light illuminates and the buzzer or chime sounds to indicate the end of the sterilization cycle.

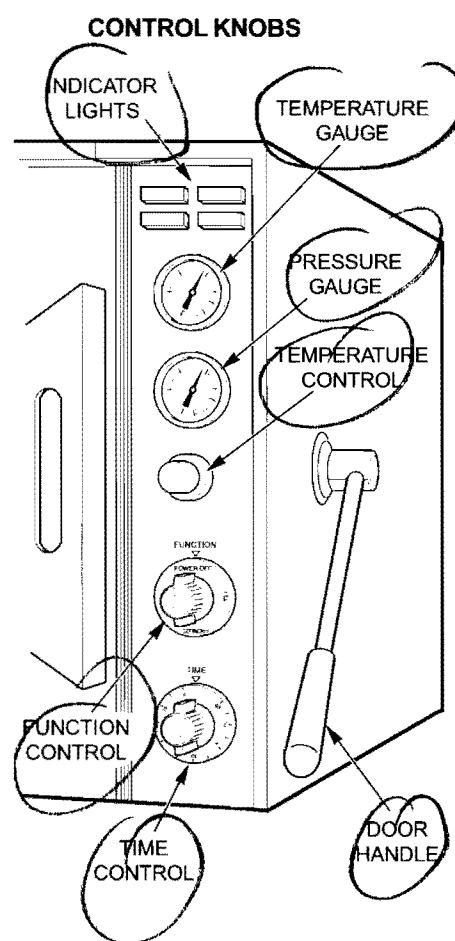
*Determined by manufacturing date of unit.

4. **Open Door** - The **Open Door** light is illuminated when the Function control is in the **Vent** or **Fill** position and pressure in the chamber is low enough to allow the door to be safely opened.

CAUTION: The door cannot be opened and no attempt should be made to operate the door handle until the **Open Door** button is depressed.

B. Gauges

1. **Temperature Gauge** - The **Temperature** gauge measures the steam temperature in the discharge line from the chamber. It is marked with a green area from 250°F to 270°F to indicate normal sterilizing temperatures.
2. **Pressure Gauge** - The **Pressure** gauge measures pressure within the chamber. It is marked with a green area between 15 and 31 PSI (pounds per square inch).



-
1. **Temperature Control** - Temperature and pressure inside the chamber are controlled by the Temperature control. It may be set from approximately 240cF to 270°F. Markings on the control indicate approximate settings. For a more precise setting, refer to Section 3.
 2. **Function Control** - All operations of the Magna-Clave are controlled by the Function control as follows:
 - a. **Power Off** - All power is turned off; door cannot be opened.
 - b. **Fill** - Water from reservoir is allowed to enter chamber; wall heating elements are energized.
 - c. **Sterilize** - Power is supplied to all heating elements as required; door cannot be opened.
 - d. **Vent** - Unused water and steam in chamber are returned to reservoir after sterilizing cycle is complete. The door can be opened when the pressure decreases to a safe level and the Open Door light is illuminated. The wall heaters remain energized. This reduces pressure build up time for successive sterilizing cycles and promotes drying of the sterilized material.
 3. **Time Control** - The **Time** control is manually set at the beginning of each sterilizing cycle. Timing begins when the preset temperature is reached and time control counts down to "0."

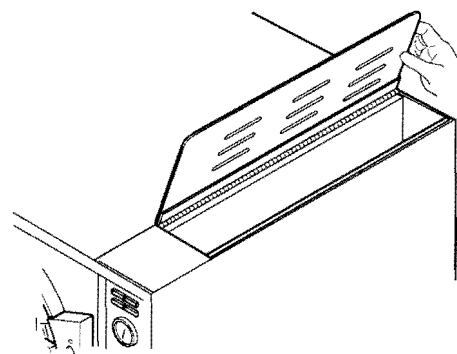
NOTE: Do not set the time control for an interval of less than five minutes.

D. Audible Signal

1. **Buzzer** - When the **Time** control returns to "0", a buzzer will sound to indicate the end of the cycle. The buzzer sounds continuously until the **Function** control is turned to **Vent**. The Time control must be set at the beginning of each sterilizing cycle. If it is not set, the buzzer will indicate end of sterilizing cycle when the preset temperature is reached, and the sterilizing cycle will not be complete. Once buzzer sounds the main heater will turn off.

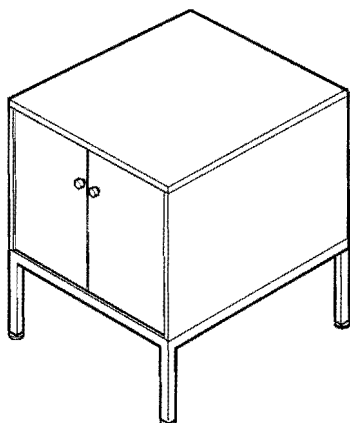
E. Water Reservoir

1. The water reservoir provides an ample water supply for cooling discharged steam and water. The reservoir should be filled with distilled or demineralized water to pre-vent corrosion. It should be filled to the line marked at the rear of the reservoir, and should never drop more than four inches below the line. A rubber and drain hose attached to the brass fitting beneath the autoclave facilitates proper drainage and cleaning. For installation information, refer to 094075, Installation of the Magna-Clave.



F. Stand

1. The Magna-Clave stand provides a convenient storage compartment to house trays or supplies.



SECTION 2

PREPARATIONS FOR STERILIZATION

I HANDLING AND CLEANING OF INSTRUMENTS

NOTE: Instruments must be thoroughly cleaned prior to placement in the sterilizer.

A. Handling

1. Wear heavy rubber gloves while handling instruments. Clean gloved hands with a germicidal cleaner (iodophor surgical scrub). Wash gloved hands well when instruments handling is complete.
2. Transport soiled instruments on a tray to the cleanup area. Protect your hands from contact with soiled instruments to prevent any serious infection.
3. Sort out any nonsurgical devices or other instruments that cannot withstand immersion without rusting. Refer to Table 2—1.

Table 2-1 ITEMS RECOMMENDED FOR STEAM STERILIZATION

- Straight stainless steel instruments
- Surgical stainless steel hinged instruments.
- Air powered instruments made for autoclaving e.g. hand pieces).
- Heat resistant plastic items
- Rubber gloves
- Rubber tubing
- Glass slabs, beakers and stones.
- Gauze
- Liquids

NOTE: Check manufacturer's recommendations for individual items before autoclaving.

B. Cleaning

Items must be completely cleaned before sterilizing. Processing instruments with debris or blood contamination may result in staining and/or damage to instruments or sterilizer.

1. Rinse instruments with hard stream of water immediately after use to remove debris. Handle soiled instruments following procedure outlined in Section 2-1-A.
2. Wash instruments in an ultrasonic cleaner for five to 10 minutes immersed in a fresh solution of detergent and distilled or demineralized water or a germicide solution. Follow manufacturer's recommended procedures. Clean all instruments in an open position.

NOTE: For best results, use a detergent specifically designed for use in an ultrasonic cleaner with a neutral ph (7).

(Health Sonics, Pleasanton, CA; L&R, Kearny, NJ, or comparable brand). A Germicide, 2% glutaraldehyde or equivalent may also be used. Be sure to follow manufacturer's instructions for mixing and use. Otherwise, unsatisfactory results and/or damage may occur. Discard and replace ultrasonic cleaning solution daily.

3. After cleaning, rinse instruments very thoroughly for 30 seconds in tap water. Then perform a final rinse with distilled or demineralized water after the 30 second rinse to remove impurities found in most tap water. Inspect instruments to ensure removal of all debris. Repeat cycle as necessary.

NOTE: To prevent staining, instruments should be rinsed with demineralized (distilled) water and dried. After rinsing in tap water in areas with hard water (water with a high mineral/salt content), dry the instruments. (Drying should not be a substitute for rinsing.) When autoclaving instruments which are not stainless steel, use a corrosion inhibitor pre-dip for two or three minutes. (This may be 2% solution of sodium nitrite in distilled water.) Allow the pre-dip to dry on the instruments without wiping.

4. Follow the recommendations by the instrument manufacturer on the use of lubricating products after instruments have been ultrasonically cleaned.

SECTION 2

PREPARATIONS FOR STERILIZATION

B. Cleaning

5. With the increasing concern for asepsis, offices are using more disinfectants and instrument soaks. If any of the disinfectants are introduced into the autoclave during the cycle (either directly or by incomplete rinsing after soaks), corrosion of the stainless steel chamber, instruments and trays or baskets may occur. There are several chemicals commonly used as disinfectants which may break down under temperature and pressure to cause corrosion to the stainless steel trays and instruments, even in a properly passivated 304 stainless steel chamber. These chemicals include:
 - Any disinfectant containing Zephiran Chloride (Benzalkonium Chloride), a quaternary ammonium compound. (A number of practices still use quaternary ammonium compounds, although this is no longer recommended by professional organizations.)
 - Any Amine based disinfectant containing quaternary amine hydrochlorides.
 - Any disinfectants containing sulfite products.
 - Any disinfectants containing phenolic products. Some disinfectants commonly used in practices containing phenols are:
 - Any disinfectants containing active hydrogen halide group.
 - Sporidicin®, Lysol®, and Omni II®.

II. SPECIAL PREPARATION GUIDE FOR CARBON STEEL INSTRUMENTS

A. Handling

1. Handle and thoroughly clean instruments as outlined above. (Refer to Section 2-1.)

B. Cleaning

1. Prepare a 2% solution of sodium nitrite (one tablespoon per quart of water). Immerse instruments in the solution and allow them to remain for three minutes.

C. Sterilization Preparation

1. Remove instruments and prepare for sterilization. (Refer to Section 2-III.) Do not rinse or wipe instruments prior to sterilization.

NOTE: Do not place carbon steel instruments directly on the MagnaClave's stainless steel tray. Before placing instruments on the tray, line the tray with a towel or paper wrap.

D. Instrument Wrapping

1. Instruments which will be wrapped for sterilization should be packaged in a material which promotes drying.

NOTE: Instruments in packages may not dry well and may require use of an atmosphere reducer (Vapor Phase, Lorciv Corporation, St. Louis, MO,) for best drying results.

III. TRAY PREPARATION AND LOADING

A. General Guidelines for Tray Preparations

- An internal process indicator strip should be included with each sterilizer load to verify gross heat penetration.
- A biological spore test indicator should be used weekly in a representative sterilizer load for sterilization assurance.
- Date packages and re-sterilize after one month, or according to packaging manufacturers' specifications.
- Sterilization indicators/monitors should be placed in the front bottom area of the sterilizer.
- DO NOT mix or cause contact of dissimilar metals (i.e. metals such as carbon steel and stainless steel) during sterilization or storage.
- Make sure that all instruments are sterilized in an open position. (Refer to AORN guidelines.)
- Place all sharps (scissors, knives, skin hooks) so they do not touch during autoclaving. Cotton or gauze may be used to isolate and protect the sharp edges and the smaller instruments.
- Do not place metal instruments, other than stainless steel, directly on stainless steel autoclave trays. The trays should be lined with thin cloth or paper liners.
- Any item which might hold water should be placed so the water will drain out.
- Use small packs to separate larger ones. See instructions for preparing wrapped trays
- Never stack trays on top of one another. At least one inch should separate trays.
- Wrapped trays and packs must not touch the sides of the sterilizer.
- Do not overload trays. Overloading may cause sterilization failure.

SECTION 2

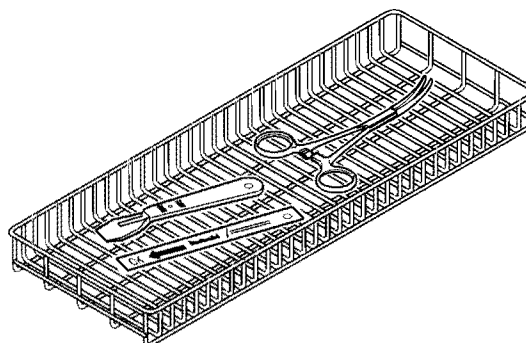
PREPARATIONS FOR STERILIZATION

B. Unwrapped Trays

These trays are prepared for sterilization of nonsurgical instruments and canisters to prevent transmitting infectious disease. Always include a process or spore test indicator with every sterilizer load.

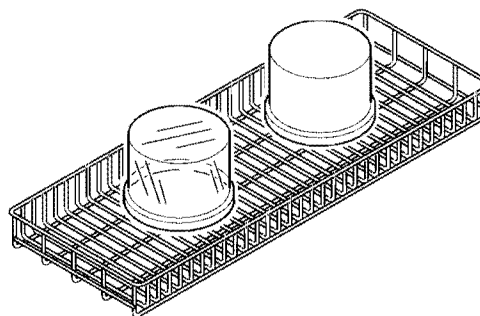
1. Loose Instruments

- a. Distribute a single layer of instruments in the bottom of a perforated tray. Instruments made of metal other than stainless steel should not contact the stainless steel autoclave tray. A very thin liner of paper or cloth should be used for separation. Provide adequate space between instruments for steam circulation. Do not overload. Be sure to include a process or spore test indicator.
- b. Place tray on rack in sterilizer.
NOTE: If multiple layers of instruments are to be separated by fabric, see instructions for preparing wrapped trays.
- c. Refer to Section 3 for operating instructions.



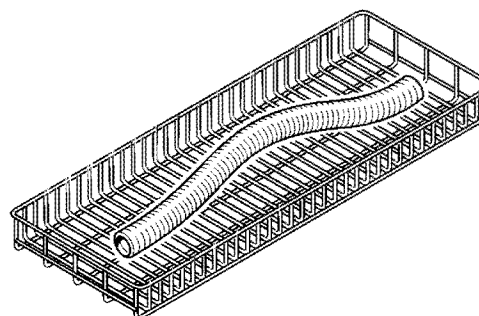
2. Open Metal or Glass Canisters

- a. Place open metal and glass canisters on a perforated tray. Tilt canisters down for adequate steam penetration. Be sure to include a process or spore test indicator.
- b. Place tray on rack in sterilizer. Do not overload or inadequate sterilization and drying may result.
- c. Make sure containers are placed so they will drain and dry adequately.
- d. See Section 3 for operating instructions.



3. Rubber Tubing

- a. Clean tubing thoroughly.
- b. Rinse with pyrogen free water leave wet. Leave both ends open. Coil and wrap without kinks or sharp bends.
- c. Place tubing on an autoclave tray. Be sure to include a process or spore test indicator.
- d. Place tray on rack in sterilizer. Do not overload or inadequate sterilization and drying will result.
CAUTION: Tubing which will come in contact with a surgical wound should be prepared as outlined above, and wrapped to maintain sterility.
- e. Refer to Section 3 for operating instructions.



SECTION 2 PREPARATIONS FOR STERILIZATION

C. Wrapped Trays and Instruments

There are several ways to prepare wrapped trays. Refer to Table 2-2 for acceptable wrapping materials.

- a. Individually wrap instruments, which have been cleaned according to Section 2-1, in autoclave bags or paper (3M, St. Paul, MN; Propper, Long Island City, NY). Do not tightly roll instruments in paper.

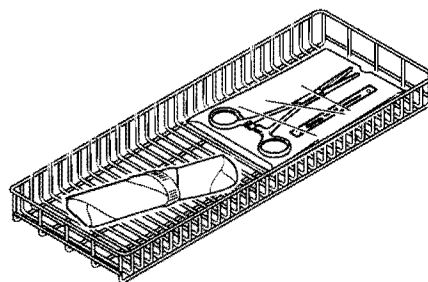
- b. Seal with autoclave tape or heat sealer (3M, St. Paul, MN; Propper, Long Island City, NY).

CAUTION: Do not use staples, pins or other devices which will puncture the packaging material. Otherwise, sterility may be compromised.

- c. Place individually wrapped instruments on perforated trays. Provide adequate space between instruments for steam circulation.

CAUTION: Do not overload trays or inadequate sterilization may result.

- d. Include a process or spore test indicator. Place the indicator inside an individually wrapped instrument which will be placed in the front of the bottom tray.
- e. Place trays on the rack in the sterilizer. Provide adequate space between trays to allow steam circulation.
- f. Refer to Section 3 for operating instructions.



2. Wrapped Instruments

- a. Collect a group of similar instruments which have been cleaned according to Section 2-1.

or

Collect instruments used for a particular procedure (i.e. amalgam, exam, etc.) which have been cleaned according to Section 2-1. Do not mix dissimilar metals.

- b. Place instruments in autoclave bag (3M, St. Paul, MN; Propper, Long Island City, NY).

or

Loosely wrap instruments in two to four layers of muslin towels or autoclave paper (3M, St. Paul, MN; Propper, Long Island City, NY).

CAUTION: Do not wrap instruments too tightly. Inadequate sterilization may result from improper wrapping or placing too many instruments per package. (If a large number of instruments per package are desired, refer to Section 2-II-D for PACKS).

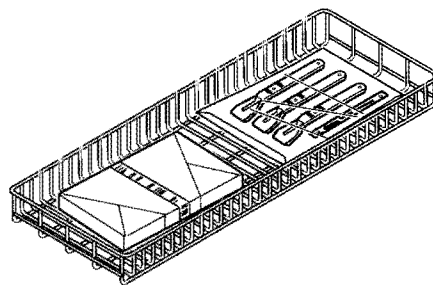
- c. Place a process or spore test indicator inside a representative bag.
- d. Seal with autoclave tape (3M, St. Paul, MN; Propper, Long Island City, NY) or heat sealer.
- e. Place packages on perforated trays. Ensure adequate space between packages to allow steam circulation.

NOTE: Place the package containing the sterilization monitor in the front of the bottom tray.

- f. Load tray in the rack in the sterilizer. Ensure adequate space between packages to allow steam circulation.

CAUTION: Do not overload or adequate sterilization may result.

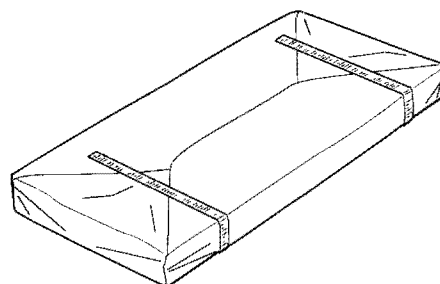
- g. Refer to Section 3 for operating instructions.



SECTION 2 PREPARATIONS FOR STERILIZATION

3. Wrapped Trays

- a. Place instruments, cleaned according to Section 2-1, in a perforated tray. Allow adequate space between instruments for steam circulation.
- b. Place a process or spore test indicator in at least one tray to be cycled.
- c. Wrap the tray in two to four layers of towels or other wrapping material. (Refer to Table 2-2.) Close using autoclave tape.
- d. Place wrapped trays on the rack in the sterilizer. Ensure that the wrapping does not touch the sides of the chamber. Allow adequate space between trays for steam circulation.



NOTE: Place the tray containing the sterilization monitor in the bottom of the sterilizer.

CAUTION: Do not overload or inadequate sterilization may result.

- e. Refer to Section 3 for operating instructions.

D. Packs

Packs are for sterilizing surgical instruments, gloves and textiles.

1. Instruments and textiles

- a. Clean instruments according to Section 2-1. Textiles should be laundered prior to sterilization.
NOTE: Do not use high chlorine or phosphate content detergents chlorine bleach in laundering items prior to sterilization. Staining of the autoclave and instruments or more severe damage may result. The use of chlorides may also result in cracks in the chamber.
- b. Loosely package instruments with not more than 10 per pack. Instruments of the same type which are nested should be separated by a layer of absorbent towels and placed so that water will run out. Loosely roll or fold textiles.

CAUTION: Density should not exceed 1/2 the capacity of the pack and the packs should not exceed 1/2 the capacity of the tray. Otherwise inadequate sterilization could result.

Or

Wrap properly cleaned articles in two to four layers of muslin towels or other packaging material. (Refer to Table 2-2.)

- c. Place a process or spore test indicator inside a representative pack.
- d. Seal with autoclave tape or heat sealer (3M, St. Paul, MN; Propper, Long Island City, NY).
CAUTION: Do not use staples, pins or other devices that could puncture packaging material. Otherwise sterility could be compromised.
- e. Place packs on perforated trays. Leave adequate space between packs to allow steam to circulate. Load packs upright, side-by-side on the tray. Do not stack.
CAUTION: Adequate drying will not occur unless space is left between packs. Metal and glass containers should not be used to separate packs as these will inhibit drying. Packs should not exceed 1/2 the capacity of the tray. Otherwise, sterilization could be compromised.
- f. Load trays onto the racks in the sterilizer. Ensure that packs do not touch the sides of the chamber. Allow adequate space between trays for steam circulation. If packs are large, some trays may be omitted to allow more clearance.

CAUTION: Do not overload or inadequate sterilization may result.

- g. Place pack containing sterilization monitor in the bottom front of the sterilizer.
- h. Refer to Section 3 for operating instructions.

SECTION 2 PREPARATIONS FOR STERILIZATION

2. Surgical gloves

NOTE: Disposable gloves should not be sterilized.

- a. Clean and dry gloves.
 - b. Place a square of muslin or other absorbent towel into the glove up to the finger.
 - c. Place a strip of muslin or other absorbent towel around the cuff and fold it back.
 - d. Place a process or spore test indicator on one glove. Wrap gloves in muslin or other packaging material. (Refer to Table 2-2.)
 - e. Place wrapped packs of gloves on end in a perforated tray. Leave space between packs to allow steam to circulate.
 - f. Load trays onto rack in the sterilizer. Leave adequate space between trays for steam circulation. Ensure that packs do not touch sides of chamber.
CAUTION: Do not overload. Do not seal container. Inadequate sterilization may result.
 - g. Place pack containing sterilization monitor in the front bottom of the sterilizer.
 - h. Refer to Section 3 for operating instructions.
-

IV. LIQUIDS PREPARATION

- A. Place liquids in a heat proof glass container, filled 2/3 full.
- B. Cover container loosely using a paper or metal cap. Do not seal container.
- C. Place container on a perforated tray. Include a process or spore test indicator. Load onto the rack in the sterilizer. (Refer to Section 3 for operating instructions.)

SECTION 2 PREPARATIONS FOR STERILIZATION

Table 2-2 WRAPPING MATERIALS FOR STEAM STERILIZATION	
SUITABLE	UNSUITABLE
Muslin 2 (layers) Nylon bagging material Kraft paper Commercial autoclave paper (must be as permeable as muslin) Plastic and paper bags (must be permeable)	Canvas Aluminum foil Steam impermeable plastics Sealed tubes, jars and cannisters Drums not recommended

Table 2-3 RECOMMENDED PERIODS OF EXPOSURE					
Material to be Sterilized VS. Time in Minutes		KPa	103	138	172
		PSI	15	20	25
		F°	250	260	267
		C°	121	127	131
Fabrics -	Loosely woven - Wrapped in muslin		30	20	-
Fabrics -	Tightly woven		40	30	-
Instruments -	In tray - Muslin cover		15	10	3
Instruments -	Individually wrapped in muslin		30	15	10
Syringes and	Needles		15	10	7
Drums -	Loosely woven contents		30	20	-
Drums -	Tightly woven contents		40	30	-
Utensils -	Loosely woven contents		30	20	10
Rubber -	In muslin packs Gloves		15	-	-
Rubber Covers -	In muslin packs		15	-	-
Brushes and	Miscellaneous Articles				
Wrapped -			15	-	
Solutions	1000 cc flasks		30	25	-

SECTION 3 OPERATIONS

WARNING: Do not attempt to bypass any of the safety interlock systems described below. Failure to do so could result in personal injury.

I. GENERAL

- A. When the **Function** control is in the **Power Off** position, all electrical power is off and the door cannot be operated. An additional safety interlock is included to prevent the door from being opened when there is an unsafe level of pressure in the chamber. Another interlock prevents the main heaters from becoming energized to generate steam unless the door is fully locked. The **Open Door** light will illuminate when it is safe to open the autoclave door. When the **Function** control is in the **Fill** position, water flows from the reservoir into the chamber. When the water level indicator in the chamber is covered, the **Function** control should be turned to **Sterilize** to stop the flow of water. To generate steam, the door must be closed and locked. The **Time** control should be set at the beginning of the sterilizing cycle. Timing will begin when the preset temperature has been reached, and will continue until the **Time** control returns to "0."

- B. When the sterilizing procedure is complete, the **Sterile** light will illuminate and the chime will sound. When the buzzer sounds, turn the **Function** control to **Vent** to cut off the **Sterile** light and the buzzer. Steam and unused water will then be returned to the reservoir from the chamber and pressure inside the chamber will be reduced to near zero. When the chamber pressure reaches a safe level, the **Open Door** light will become illuminated.

WARNING: Never attempt to open door unless open door light is illuminated and pressure gauge indicates "0."

To aid in absorbing moisture, the door can now be slightly opened. The chamber heaters will remain energized. Leave materials inside the chamber until dry. Drying time is determined by the size of the material and manner in which it was packed. Drying times have not been established due to varying conditions. When the **Function** control is left in the **Vent** position, the Magna-Clave will remain in a warm, standby condition.

II. OPERATING PROCEDURES FOR NORMAL STERILIZATION

WARNING: Burns and bodily injury can occur if a sterilizing cycle is interrupted or "aborted" in the following manner:

- Autoclave has been in **Sterilize** mode for five minutes or more after a cold start.
- **Function** control is then turned to **Vent** and **Open Door** light is illuminated. If this situation develops, **DO NOT** open door even though **Open Door** light is illuminated. Wait ten minutes before attempting to open door.

A. Unlock door

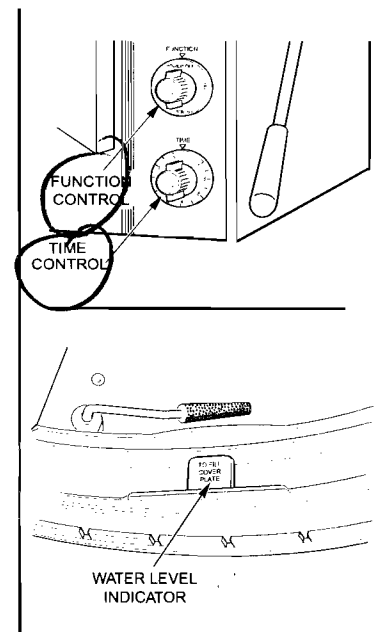
Turn **Function** control to **Vent** or **Fill**. Depress and hold **Open Door** button on front of Magna-Clave and lift door locking handle on right side of unit.

B. Fill

Turn **Function** control to **Fill**. When water in chamber covers water level indicator, rotate **Function** control to **Sterilize**. *Note: Ensure water level indicator is completely submerged in water.*

C. Load

Load chamber. Refer to Section 2-III.



SECTION 3 OPERATIONS

D. Lock Door

Close door and push down the door locking handle on the right side of the Magna-Clave.

E. Set Time Control

Rotate **Time** control clockwise to desired sterilizing time. The **Time** control will start when the preset temperature is reached.

*NOTE: If Time control is not set at the beginning of the sterilizing cycle, the buzzer will sound and the **Sterile** light will illuminate as soon as the preset temperature is reached.*

F. Set Temperature

Turn **Temperature** control to the desired temperature. When a more precise setting is desired, turn **Temperature** control fully clockwise. When temperature gauge reaches desired temperature, rotate **Temperature** control slowly counterclockwise until the **Heat-On** light goes off. Once the control is set, it is not necessary to move it unless a change in sterilizing temperature is desired.

CAUTION: Unit should be periodically monitored during sterilization to ensure temperature gauge is climbing until the preset temperature is obtained. Once the temperature gauge reaches approximately 220° F, the pressure gauge should start climbing. If pressure fails to increase within 30 minutes, turn function control to vent and recheck water level. Ensure water is to the water indicator. The pressure rising may vary due to line voltage or unit load.

Monitor unit according to the time indicated below:
(Rising pressure may vary due to line voltage or unit load.)

15 Minutes: Unit should be monitored to determine the unit is heating by observing temperature gauge.

30 Minutes: Both temperature and pressure gauges should be obtaining temperature and pressure. Unit should read preset temperature and corresponding pressure.

NOTE: If unit is not building pressure but temperature is climbing, turn unit off. Turn Function control to vent and check water level.

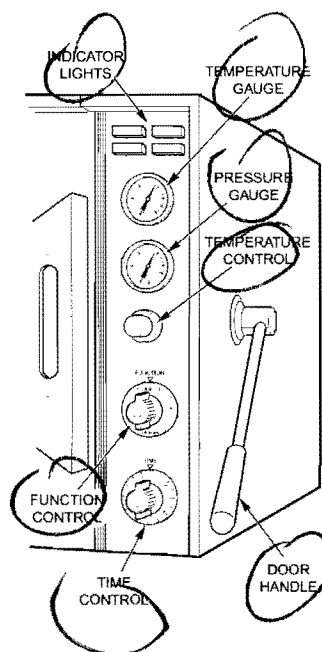
G. Vent

After the buzzer sounds and **Sterile light** illuminates, turn the **Function** control to **Vent**.

H. Unlock Door

After ensuring that the **Open Door** light is illuminated and that the pressure gauge indicates "0," lift door locking handle while depressing **Open Door** button on front of Magna-Clave.

I. Drying: After unlocking door, allow door to stand partially open with **Function** control still in the **Vent** position.



SECTION 3 OPERATIONS

III. OPERATING PROCEDURES FOR LIQUID STERILIZATION

WARNING: Burns and bodily injury can occur if a sterilizing cycle is interrupted or "aborted" in the following manner:

- Autoclave has been in **Sterilize** mode for five minutes or more after a cold start.
- Function control is then turned to **Vent** and **Open Door** light is illuminated. If this situation develops, **DO NOT** open door even though **Open Door** light is illuminated. Wait ten minutes before attempting to open door.

NOTE: Use only Pyrex® or stainless steel containers for liquids sterilization. Containers should only be covered with paper caps.

A. Preparation and Sterilization

1. To sterilize liquids, follow the procedures A-F, Section 3-II "Operating Procedures For Normal Sterilization."

B. Vent

1. After the buzzer sounds and **Sterile** light illuminates, turn the **Function** control quickly past the **Vent** position to **Off** position.

C. Cool Down

1. Allow autoclave to cool down until pressure gauge indicates "0" (approximately 25 minutes).

D. Unlock Door

1. After ensuring **Open Door** light is illuminated and pressure gauge indicates "0," lift door locking handle while depressing **Open Door** button on front of Magna-Clave.

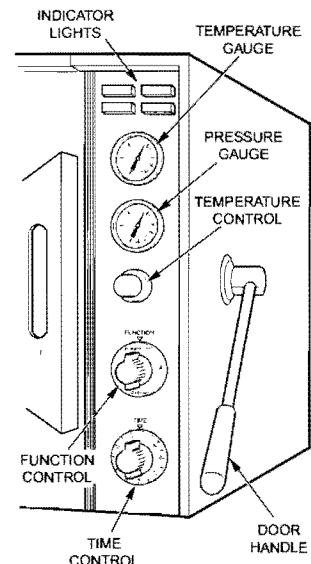
E. Drying

1. After unlocking door, allow door to stand partially open with **Function** control still in the **Vent** position.

IV. OPERATING GUIDELINES

- A. The Magna-Clave may be preheated by turning the **Function** control to **Vent** 30 minutes before the autoclave is needed. This will allow for a faster desired sterilizing temperature.
- B. Water should only be added to the reservoir when the **Function** control is in the **Vent** or **Power Off** position. Demineralized or distilled water must always be used to prevent corrosion. The minimum water level should always reach the level indicating mark on the back of reservoir.
- C. Do not attempt to turn the **Function** control from **Sterilize** to **Fill** or from **Vent** to **Sterilize**. There are mechanical stops which prevent the **Function** control from being turned in this manner.
- D. Improper sterilization may result if chamber is overloaded or too crowded.
- E. The **Time** control must be set at the beginning of each cycle to the desired sterilizing time. If the **Time** control is not properly set, the buzzer or chime will sound and the **Sterile** light will illuminate. This indicates the end of the sterilizing cycle and will not allow completion of the cycle.

NOTE: Do not set the **Time** control for an interval of less than five minutes.



SECTION 3 CARE AND MAINTENANCE

1. PREVENTIVE MAINTENANCE SCHEDULE

CHECK	FREQUENCY	PROCEDURE	ACTION
Clean and inspect chamber	Weekly	12 oz.. Omni-Cleaner to 1 gallon distilled water on 20 minute cycle.	See Sections 4-II and 4-IV. Call authorized service representative cracks or fissures are found. Do not operate unit.
Safety valve ring WARNING:When ring is pulled on safety valve with unit under pressure steam is discharged from the chamber at a high temperature. Keep clear of steam discharge path to avoid burns. Use of a hot pad or instrument to pull ring is suggested.	Every 3 months	Remove casing plate (located on top rear of unit). Manually pull ring while chamber is under pressure.	If valve does not open, turn off POWER and call for service representative.
Door gasket	Weekly	Inspect and clean using Omni-Cleaner or mild detergent and distilled water. Check for leaks (have leaking gasket replaced).	Call authorized service representative for replacement gaskets.
Chamber fill filter	Weekly	Inspect and clean.	See Section 4-II.
Door interlock	Weekly	Inspect. See Section 4-II.	Call authorized service representative for improper closure or signs of wear.
Boiler ring	Weekly	Inspect and clean using nonchlorinated pad which contains no metal.	

SECTION 3 CARE AND MAINTENANCE

II. CLEANING

It is highly recommended that the autoclave be cleaned a minimum of once a week with Omni-Cleaner (Part No. WZI-091295) and distilled or demineralized water. The Omni-Cleaner is a mildly alkaline concentrate used to clean and descale autoclaves. Minerals, especially chlorides, are corrosive to stainless steel. Therefore, tap water with a high mineral content should not be used. When sterilizing saline solutions, it is **imperative** that the autoclave be cleaned **after** each use. With proper cleaning, the autoclave will provide higher performance and longer life.

A. Cleaning Procedures

1. Mix 12 ounces of Omni-Cleaner in one gallon of distilled, demineralized water.
2. Drain water from reservoir. Refill reservoir with a solution of Omni-Cleaner and water. (The reservoir will not be full. However, the level will be adequate.)
3. Run one- 20 minute sterilizing cycle to remove all grease and grime from the system. If the autoclave is extremely dirty, it may require a second cleaning. Do not sterilize instruments while cleaning the autoclave.
4. Drain cleaning solution from reservoir and chamber. Rinse thoroughly with clean, mineral-free water, and run a rinse cycle for fifteen minutes.
5. Drain rinse solution and wipe inside of boiler thoroughly. If scale or lime deposits remain on inside of chamber, ensure that autoclave is cool. Then clean with water, plastic or nylon scouring pads and a nonchlorinated detergent.

NOTE: Detergents containing chlorine are corrosive to stainless steel and should not be used. Do not use ordinary steel wool or steel brushes on stainless steel. Pads containing metal may damage chamber.

6. Refill reservoir with clean, mineral-free water. The Magna-Clave is now ready for use.

B. Draining Reservoir

1. The reservoir drain hose is located inside the right-hand door of stand, near the top. For Magna-Claves which do not have a stand, the hose will be located under the front edge and to the left of the unit. The drain hose may be drained by removing it from its clip and unscrewing the tip end. The hose should be drained into a 10 quart capacity container. When the reservoir is completely drained, replace tip and clip drain hose in place.

C. Cleaning Fill Filter

1. Pull out fill tube and filter assembly from inside of chamber and clean filter with a stiff brush and nonchlorinated detergent.
2. Replace fill tube and filter assembly. Make sure filter is flat against bottom of chamber. If the filter does not lie flat against bottom of chamber, an excessive amount of water will remain in the chamber after the sterilizing cycles. Failure to clean this filter regularly will result in excessive time to fill and vent chamber.

C. Cleaning Fill Filter

1. Clean all exterior surfaces with mild detergent and water using a sponge or cloth.
2. Exterior surfaces may be disinfected using an iodophor (Biocide, Biotrol, Inc., N. Salt Lake City, Utah, or equivalent), glutaraldehyde (Cidex, Surgicos, Dallas, Texas, or equivalent) or sodium hypochlorite (household bleach diluted 1:10-1:100. Be sure to follow manufacturer's instructions for mixing and use. Otherwise, unsatisfactory results and/or damage may occur. Do not use household bleach on interior stainless steel surface.

SECTION 3 CARE AND MAINTENANCE

III. STERILIZATION ASSURANCE

A. Clinical Record Keeping

Validate daily and weekly records to assure and substantiate sterilization procedures.

B. Techniques for sterilization assurance:

1. Use dated color change indicator closure tapes (3M, St. Paul, @; Propper, Long Island City, NY) on all packs, or use bags with process indicators.
2. Use internal process indicator strips inside all sterilizer loads to verify gross heat penetration.
3. Use a biological spore test indicator (Attest® Biological Monitoring System, 3M, St. Paul, MN; Propper, Long Island City, NY,) inside a representative sterilizer load weekly.
4. Follow manufacturer's instructions for using all test materials and maintaining good clinical records. Contact dealer to obtain biological test indicators that meet AAMI standards.
5. Follow Preventive Maintenance schedule (Section 4-I,) to ensure proper operation of the autoclave.

IV. OPTIONAL ACCESSORIES

A. Trays

A basket tray and shallow flat tray are standard equipment. A bedpan tray is available as an option.

B. Temperature Recorder

A recording thermometer which provides a permanent record of the steam temperature may be factory or field installed. The steam temperature is recorded on a circular chart for a 24 hour period.

V. INSPECTIONS

A. General

1. The Magna-Clave is a pressure vessel that falls under various state and/or local laws which differ in inspection requirements. Some laws require complete periodic inspection of a pressure vessel. The inspection period varies according to individual laws. This inspection is usually performed by a qualified inspector commissioned by the National Board of Boilers and Pressure Vessels. Insurance companies may also require a similar type of inspection. The governmental agency in your **area** and/or your insurance company will determine the inspection requirements for your Magna-Clave.
2. For additional information concerning the Magna-Clave, contact Pelton & Crane, A DCI Company P.O. Box 241147, Charlotte NC, 28224 or your full service dealer. When ordering service or parts, always include the serial number of your unit.

B. Inspecting the Chamber

1. Inside Chamber Inspection

Make a thorough inspection inside the chamber every six months. If cracks or fissures are found, call a qualified service technician. **Do not operate a unit with cracks in the chamber.**

WARNING: Do not perform the following test with any pressure in the chamber.

C. Door Interlock Check

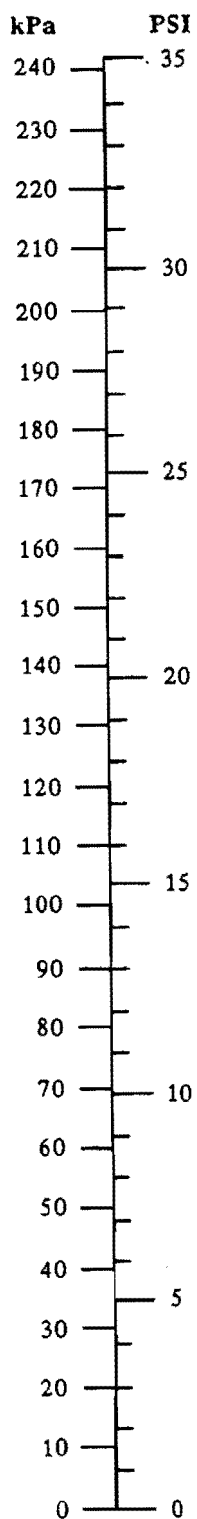
1. With the unit cold, open door and push down on door locking handle.
2. Rotate **Function** control counterclockwise to **Sterilize**.
3. Depress and hold **Open Door** button and pull up on door locking handle as if to open door. **Do not force door handle.** Use no more force than it takes to open the door normally.
4. If door locking handle can be pulled all the way up and the clamping expanded, turn the **Function** control to **Power Off** and call a qualified service technician immediately. **Never operate a Magna-Clave in this condition.**
5. If door locking ring cannot be opened, rotate the **Function** control to **Vent**, depress **Open Door** button, lift door locking handle up, and open door locking ring. The Magna-Clave is now ready for use again.

GLOSSARY

Asepsis:	Freedom from infective microorganisms.
Autoclave:	A container for sterilizing by steam under pressure.
Bioburden:	The level of organisms on a particular item at a specific time.
Biological Monitor or Spore Test:	A preparation of resistant microorganisms which is used to verify sterilization. Usually requires incubation which may be performed by an independent laboratory.
Cold Sterilant:	An agent which sterilizes at room temperature. Usually a chemical such as glutaraldehyde.
Corrosion Inhibitor:	A chemical substance which, when used in small amounts, effectively reduces the corrosion rate of metals such as carbon steel.
Disinfection:	Destruction of bacteria.
Pathogen:	Any microorganism or virus that can cause disease.
Process Monitor:	An indicator which is sensitive to at least one sterilization parameter. Useful to indicate sterilization bypass but does NOT indicate sterilization. Examples: autoclave tape, heat-sensitive bag markings, heat sensitive marked strips, fusible glass melting pellets.
Sanitize:	To make an item surgically clean but not necessarily Sterile. Usually accomplished using a low-level disinfectant.
Septic:	Unsterile. Infection caused by introduction of pathogenic microorganisms.
Spores:	The reproductive cell of some microorganisms which is highly resistant.
Sterilization:	Total destruction of all microbial life including bacteria, viruses and spores.
Ultrasound:	A type of cleaner which uses ultrasonic waves at high frequency to agitate contaminants and dirt from items.
Vegetative Bacteria:	A freely multiplying form of bacteria.

AUTOCLAVE CONVERSION SCALE

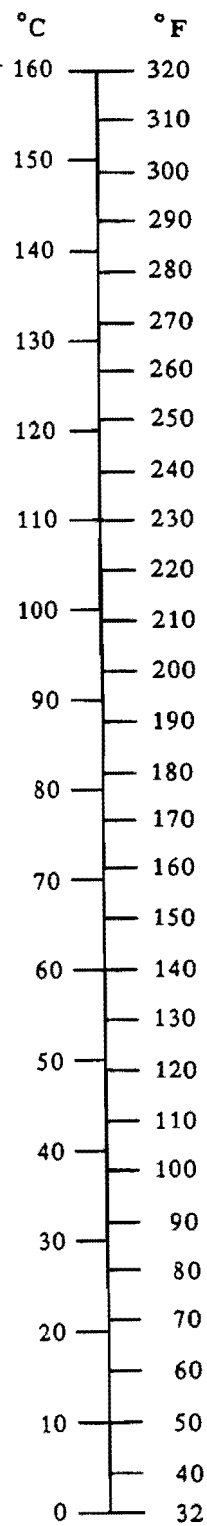
PRESSURE



1 PSI = 6.89 kPa

1 kPa = 0.145 PSI

TEMPERATURE



°C = 5/9 (°F-32°)

°F = (9/5 X °C) + 32°

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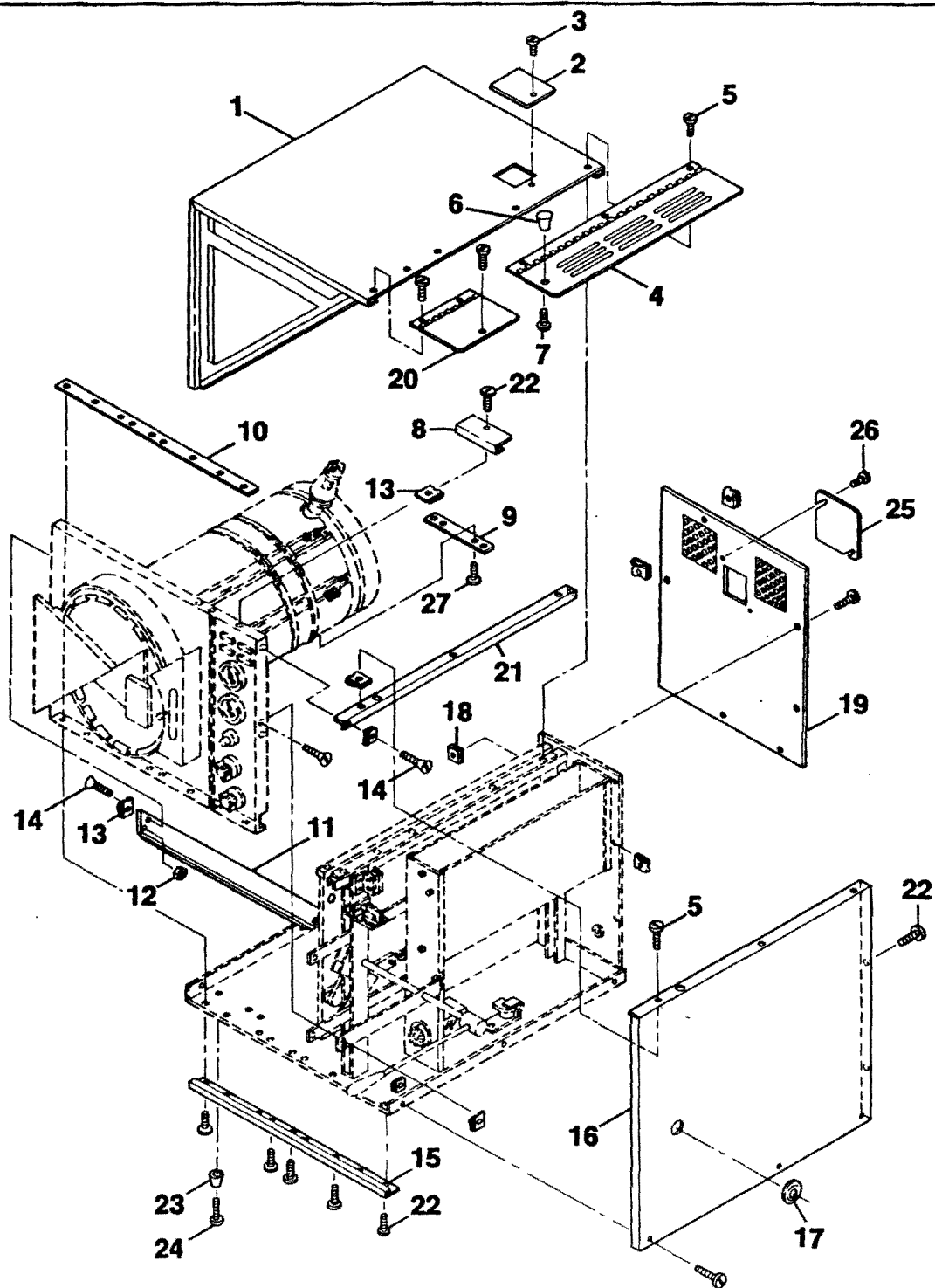
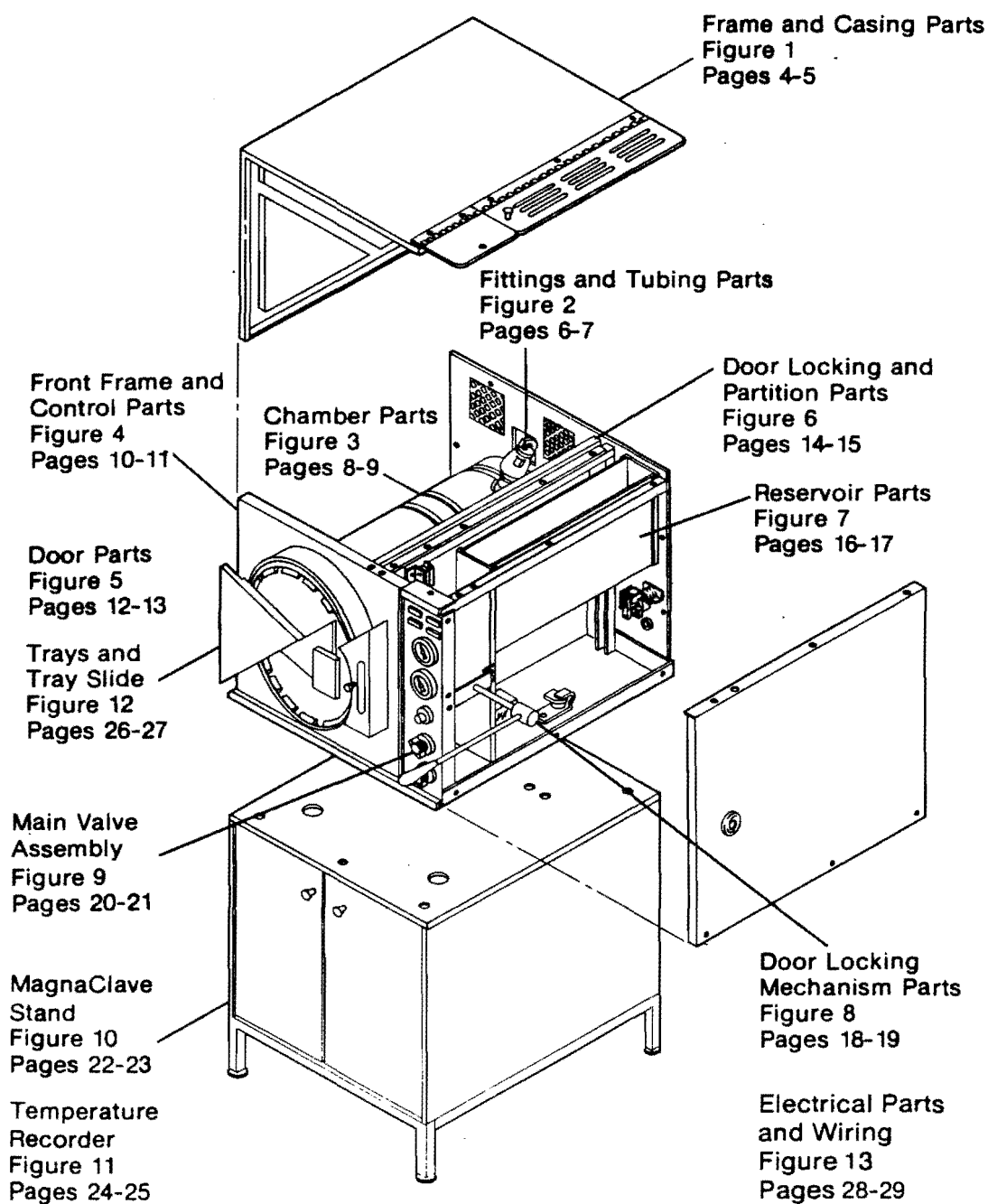


Figure 1. Frame and Casing Parts

VISUAL INDEX



MAGNACLAVE

FRAME AND CASING PARTS

INDEX	PART NO.	DESCRIPTION
*1.	A66-004785	Casing & Insulation Assembly
*2.	A66-004808	Casing Plate Assembly
3.	XD1-090340	Screw—#6-32 x 1/4" pan head tapping
*4.	A66-004778	Reservoir Cover Assembly
5.	XE1-090458	Screw—#10-24 x 1/2" binder head machine
6.	F02-005669	Knob—Reservoir Cover
7.	XE1-090432	Screw—#8-32 x 1/4" round head machine
8.	A65-004580	Trim—Top
9.	A65-004656	Nut—Rear Support
10.	A65-004655	Nut—Front Frame
11.	A65-004553	Brace—Left Front Frame
12.	XB2-090056	Nut—#10-24 hex
13.	A32-004076	Speednut
14.	XD1-090141	Screw—#10-24 x 1/2" slotted flat head machine
15.	A65-004581	Trim—Bottom
*16.	A66-004783	Right Side Casing Assembly
17.	A64-004541	Disc—Trim
18.	A32-004086	Nut—Retainer
*19.	A66-004779	Back Assembly
*20.	A66-010531	Maintenance Cover Assembly
21.	A65-004567	Brace—Right Frame
22.	XD1-090300	Screw—#10-24 x 3/8" binder head machine
23.	A33-004120	Foot—Tip Retainer
24.	XD1-090103	Screw—#10-24 x 7/8" slotted round head machine
25.	A62-008057	Cover—Blanks
26.	XD1-090353	Screw—#8-32 x 1/4" pan head sheet metal
27.	XD1-090119	Screw—1/4-20 x 1/2" round head machine

*THESE PARTS SOLD ONLY AS ASSEMBLIES

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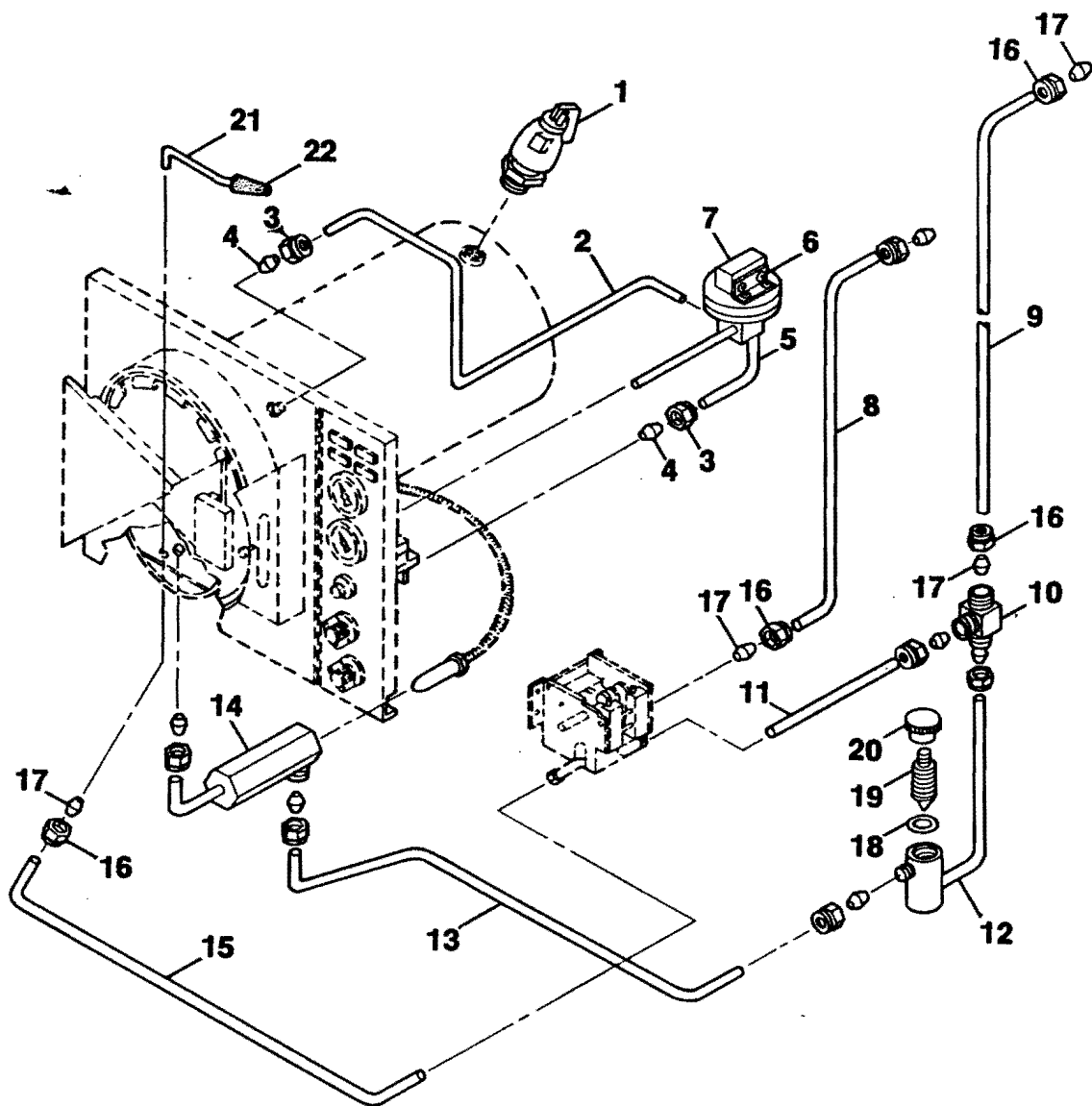


Figure 2. Fittings and Tubing Parts

FRAME AND CASING PARTS

INDEX	PART NO.	DESCRIPTION
*1.	A66-004785	Casing & Insulation Assembly
*2.	A66-004808	Casing Plate Assembly
3.	XD1-090340	Screw—#6-32 x 1/4" pan head tapping
*4.	A66-004778	Reservoir Cover Assembly
5.	XE1-090458	Screw—#10-24 x 1/2" binder head machine
6.	F02-005669	Knob—Reservoir Cover
7.	XE1-090432	Screw—#8-32 x 1/4" round head machine
8.	A65-004580	Trim—Top
9.	A65-004656	Nut—Rear Support
10.	A65-004655	Nut—Front Frame
11.	A65-004553	Brace—Left Front Frame
12.	XB2-090056	Nut—#10-24 hex
13.	A32-004076	Speednut
14.	XD1-090141	Screw—#10-24 x 1/2" slotted flat head machine
15.	A65-004581	Trim—Bottom
*16.	A66-004783	Right Side Casing Assembly
17.	A64-004541	Disc—Trim
18.	A32-004086	Nut—Retainer
*19.	A66-004779	Back Assembly
*20.	A66-010531	Maintenance Cover Assembly
21.	A65-004567	Brace—Right Frame
22.	XD1-090300	Screw—#10-24 x 3/8" binder head machine
23.	A33-004120	Foot—Tip Retainer
24.	XD1-090103	Screw—#10-24 x 7/8" slotted round head machine
25.	A62-008057	Cover—Blanks
26.	XD1-090353	Screw—#8-32 x 1/4" pan head sheet metal
27.	XD1-090119	Screw—1/4-20 x 1/2" round head machine

*THESE PARTS SOLD ONLY AS ASSEMBLIES

**FITTINGS AND TUBING PARTS**

INDEX	PART NO.	DESCRIPTION
1.	A63-004529	Valve—Safety
2.	A65-004637	Tubing—Chamber to Junction
3.	A02-004009	Nut—Compression
4.	A02-004008	Sleeve—Compression
*5.	A66-012792	Pressure Switch Assembly (Includes Nos. 6 and 7)
6.	A65-004575	Bracket—Pressure Switch
7.	A62-004461	Switch—Pressure
8.	A65-004631	Tubing—Reservoir to Main Valve
9.	A65-004633	Tubing—Reservoir to Vent Junction
10.	A02-004007	Tee
11.	A65-004641	Tubing—Main Vent to Vent Junction
*12.	A66-004804	Air Valve Housing & Seat Assembly
13.	A65-004636	Tubing—Thermometer to Air Valve
*14.	A66-004765	Thermometer Well Assembly
15.	A65-004632	Tubing—Main Valve to Chamber
16.	A22-004062	Nut—Compression
17.	A22-004058	Sleeve—Compression

BELLOWS AND CAP ASSEMBLY A36-011047

18.	A02-004004	O-Ring—Air Valve
19.	A13-004048	Bellows—Air Valve
20.	A35-004228	Cap—Air Valve

FILTER AND TUBE ASSEMBLY A66-004798

21.	A65-004640	Tube—Vent
22.	A42-004326	Filter—Fill Line

*THESE PARTS SOLD ONLY AS ASSEMBLIES

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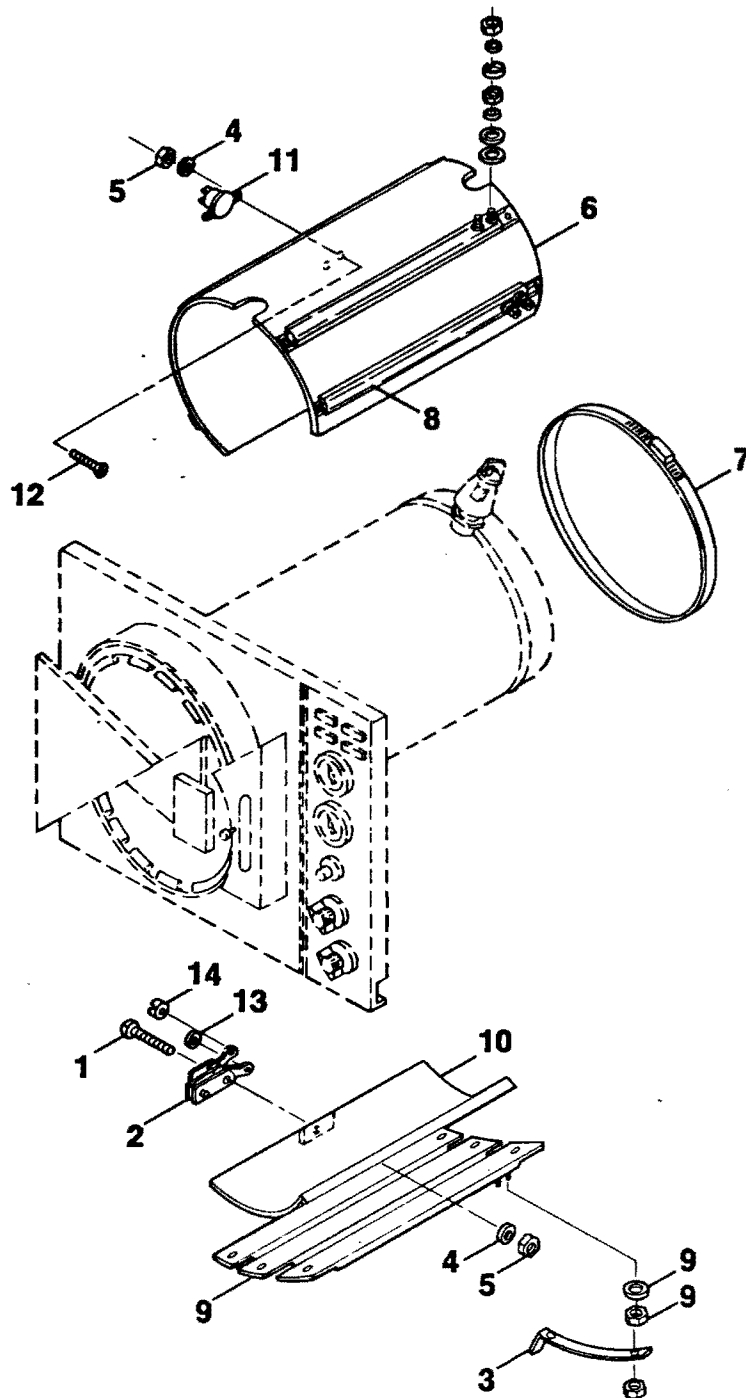


Figure 3. Chamber Parts

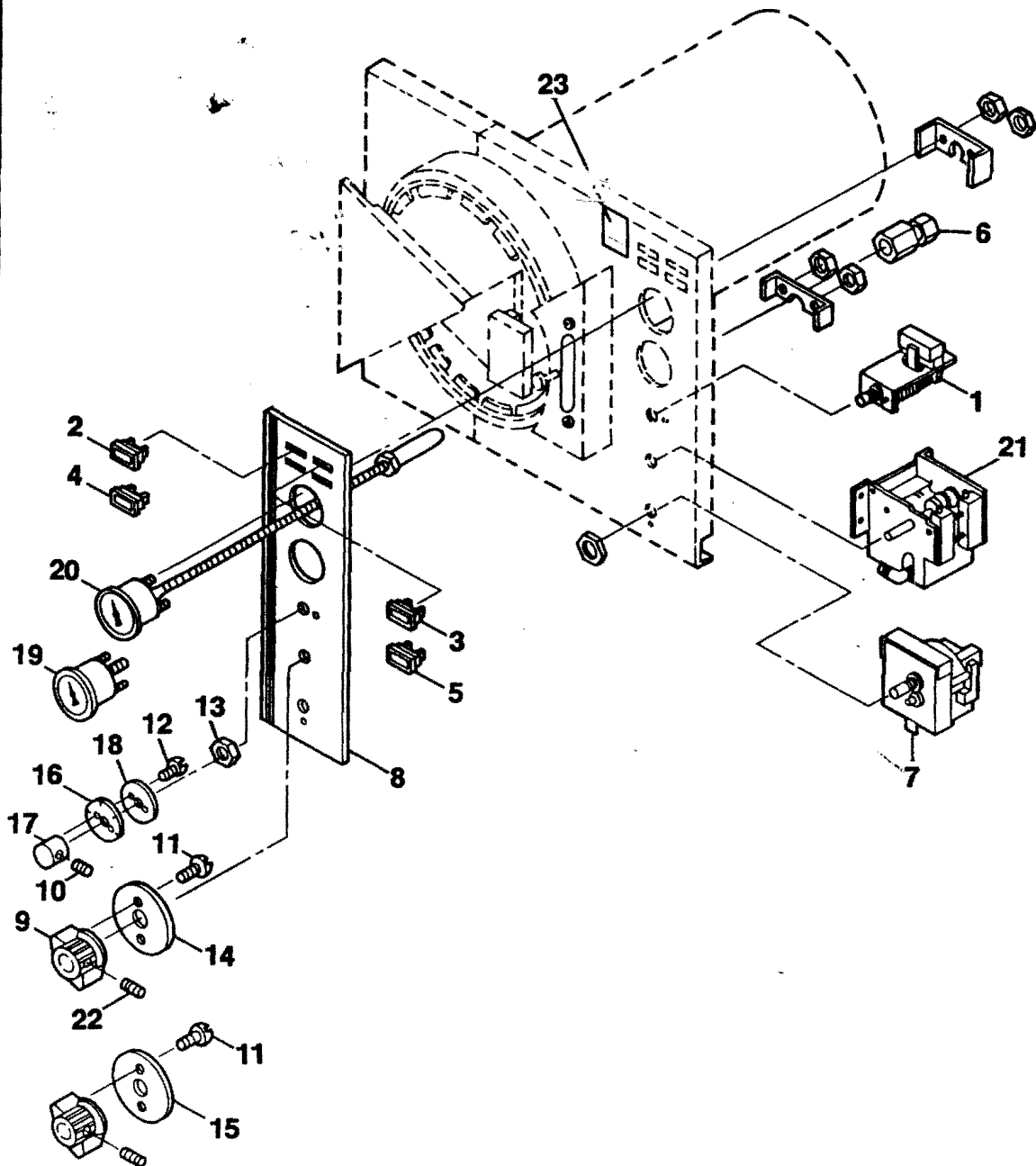


Figure 4. Front Frame and Control Panel Parts

CHAMBER PARTS

INDEX	PART NO.	DESCRIPTION
1.	XD1-090082	Screw—#6-32 x 7/8" round head machine
2.	A63-004505	Thermostat—Main
3.	A65-004627	Bus Bar—Main Heat
4.	XD3-090377	Lockwasher—Internal tooth
5.	XD2-090404	Nut—#6-32 hex
6.	A65-004619	Shim—Wall Heat
7.	A62-004458	Clamp
8.	A63-004503	Heater—Strip (Wall) 240 Volt
	A63-004516	Heater—Strip (Wall) 208 Volt
9.	A63-004502	Heater—Strip (Main) 240 Volt
	A63-004515	Heater—Strip (Main) 208 Volt
10.	A65-004620	Shim—Main Heat
-11.	A64-004527	Thermostat—Wall (CSA)
12.	XD1-090134	Screw—#6-32 x 3/8" flat head machine
13.	A32-017904	Terminal—Solderless
14.	A32-019014	Washer—Terminal

WALL THERMOSTAT REPLACEMENT KIT A69-004836

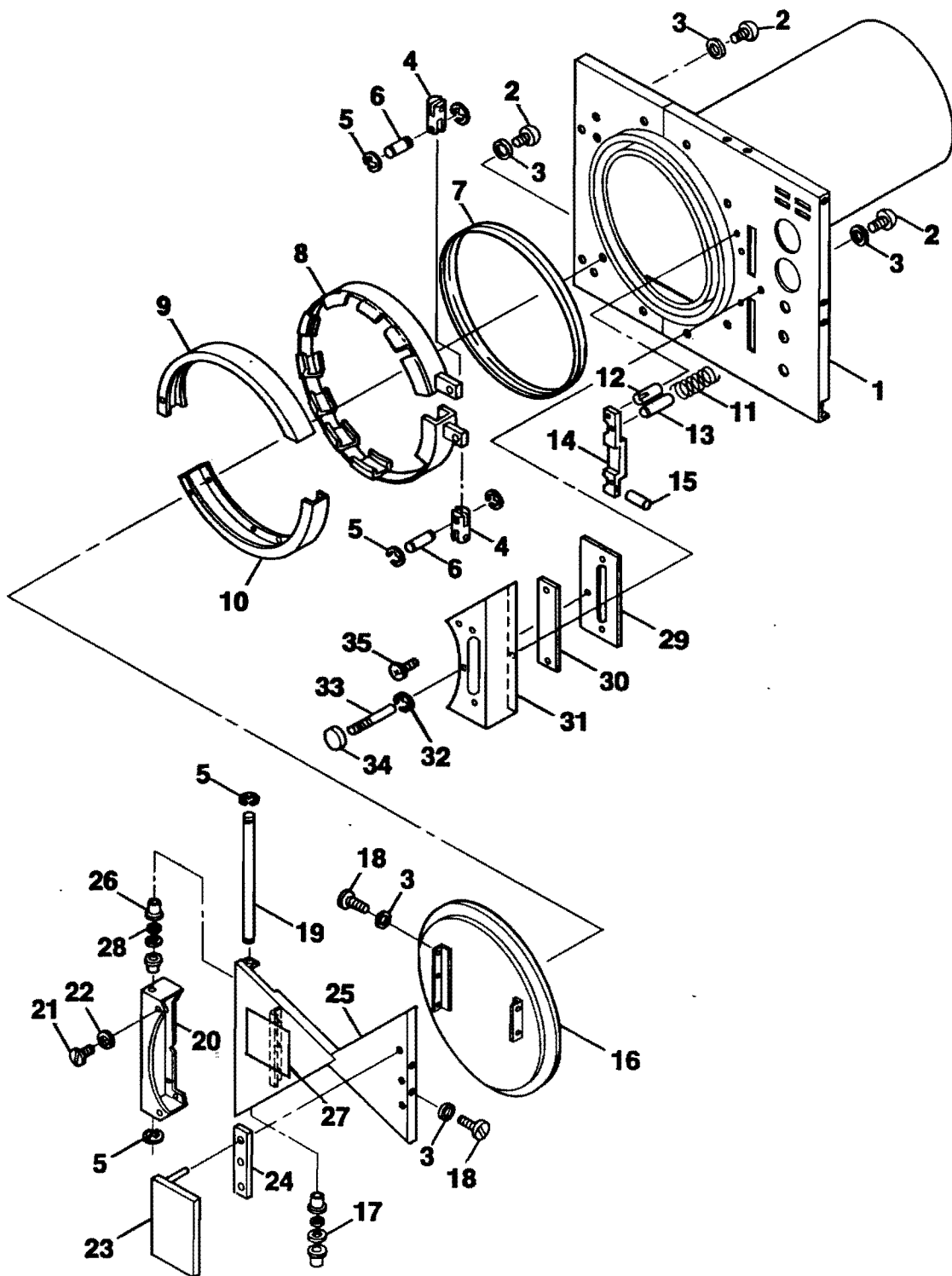


Figure 5. Door Parts

FRONT FRAME AND CONTROL PANEL PARTS

INDEX	PART NO.	DESCRIPTION
*1.	A66-004800	Pressure Switch & Frame Assembly
	A62-004478	Switch <u>only</u>
2.	A63-004498	Light—Power On
3.	A63-004500	Light—Sterile
4.	A63-004499	Light—Heat On
5.	A63-004501	Light—Open Door
6.	A32-004089	Connector Gauge (female)
7.	A63-004531	Timer
8.	A64-004544	Panel—Control
9.	A64-004536	Knob—Timer
10.	XD1-090249	Screw—#8-32 x 3/16" socket set
11.	XD1-090366	Screw—#4-24 x 1/4" round head slotted thread cutting
12.	XD1-090068	Screw—#4-36 x 3/16" round head machine
13.	A22-004059	Nut—Bushing
14.	A63-004506	Escutcheon—Function Knob
15.	A63-004507	Escutcheon—Timer Knob
16.	A63-004508	Escutcheon—Temperature Knob
17.	A65-004625	Knob—Temperature
18.	A65-004626	Plate—Temperature Knob
19.	A33-015316	Gauge—Pressure
20.	A63-015363	Gauge—Temperature
21.	A66-004801	Main Valve Assembly
22.	XD1-090278	Screw—#8-32 x 5/16" socket set
23.	A33-004125	Plate—Caution

*THESE PARTS SOLD ONLY AS ASSEMBLIES

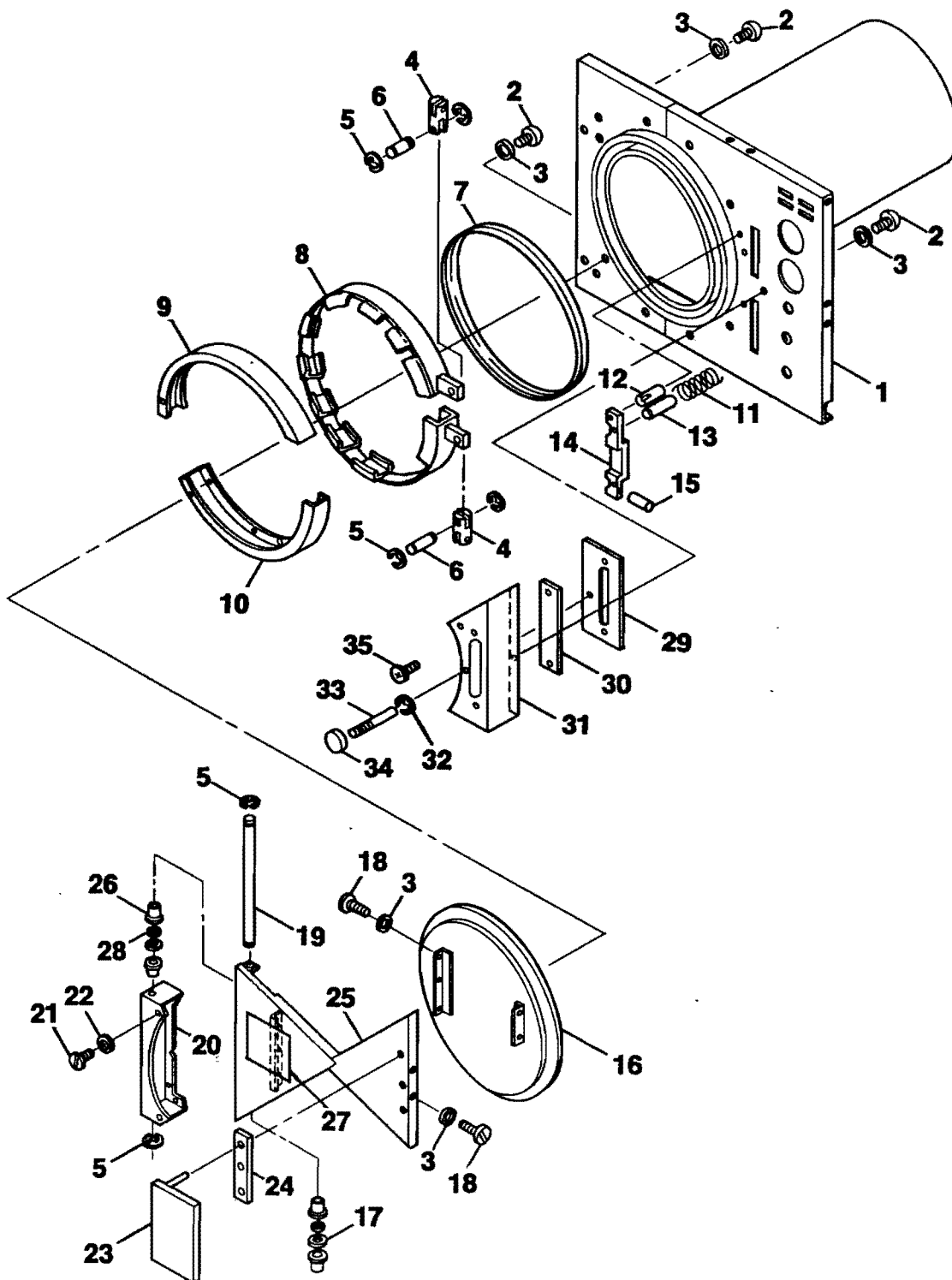


Figure 5. Door Parts

DOOR PARTS

INDEX	PART NO.	DESCRIPTION
1.	A63-004764	Chamber and Support
2.	XD1-090099	Screw—#10-24 x 1/4" round head machine
3.	XD3-090371	Lockwasher—Spring
4.	A65-004603	Linkage—Lock Ring Adapter
5.	A02-004001	Ring—Valve Retaining
6.	A65-004604	Pin—Lock Ring Arm
7.	A63-004497	Gasket—Door
*8.	A63-004768	Lock Ring Assembly
9.	A64-004542	Guide—Upper
10.	A64-004538	Guide—Lower
11.	A63-017868	Spring—Lock Bar
12.	A65-017622	Pin—Switch Adjusting
13.	A65-017621	Pin—Guide
14.	A65-017633	Bar—Door Lock
15.	XD1-090253	Screw—#10-24 x 1/4" socket set
*16.	A66-004771	Door Assembly
17.	H33-006703	Washer—Spacer
18.	XD1-090298	Screw—#10-24 x 3/8" binder head machine
19.	A65-004593	Pin—Door Hinge
20.	A65-004588	Base—Door Hinge
21.	XE1-090456	Screw—#10-24 x 1/4" binder head machine
22.	XD3-090380	Lockwasher—Internal tooth
*23.	A66-004777	Door Handle Assembly
24.	A64-004540	Insulator—Handle
*25.	A66-004762	Door Support Assembly
26.	A65-004594	Bushing—Door Hinge
27.	A63-012997	Warning Plate
28.	A15-004054	Washer—Spacer

COVER ASSEMBLY A66-017910

*29.	A66-017627	Frame Assembly—Window
30.	A65-017626	Window—Door Lock
31.	A65-017632	Cover—Door Lock
	A66-016855	Door Cover & Plate Assembly (Repair only)
32.	A72-001170	Ring—Retaining
33.	A65-017624	Rod—Push
34.	A65-017623	Cover Button—Push Rod
35.	XE1-090810	Screw—#8-32 x 1/4" machine

*THESE PARTS SOLD ONLY AS ASSEMBLIES

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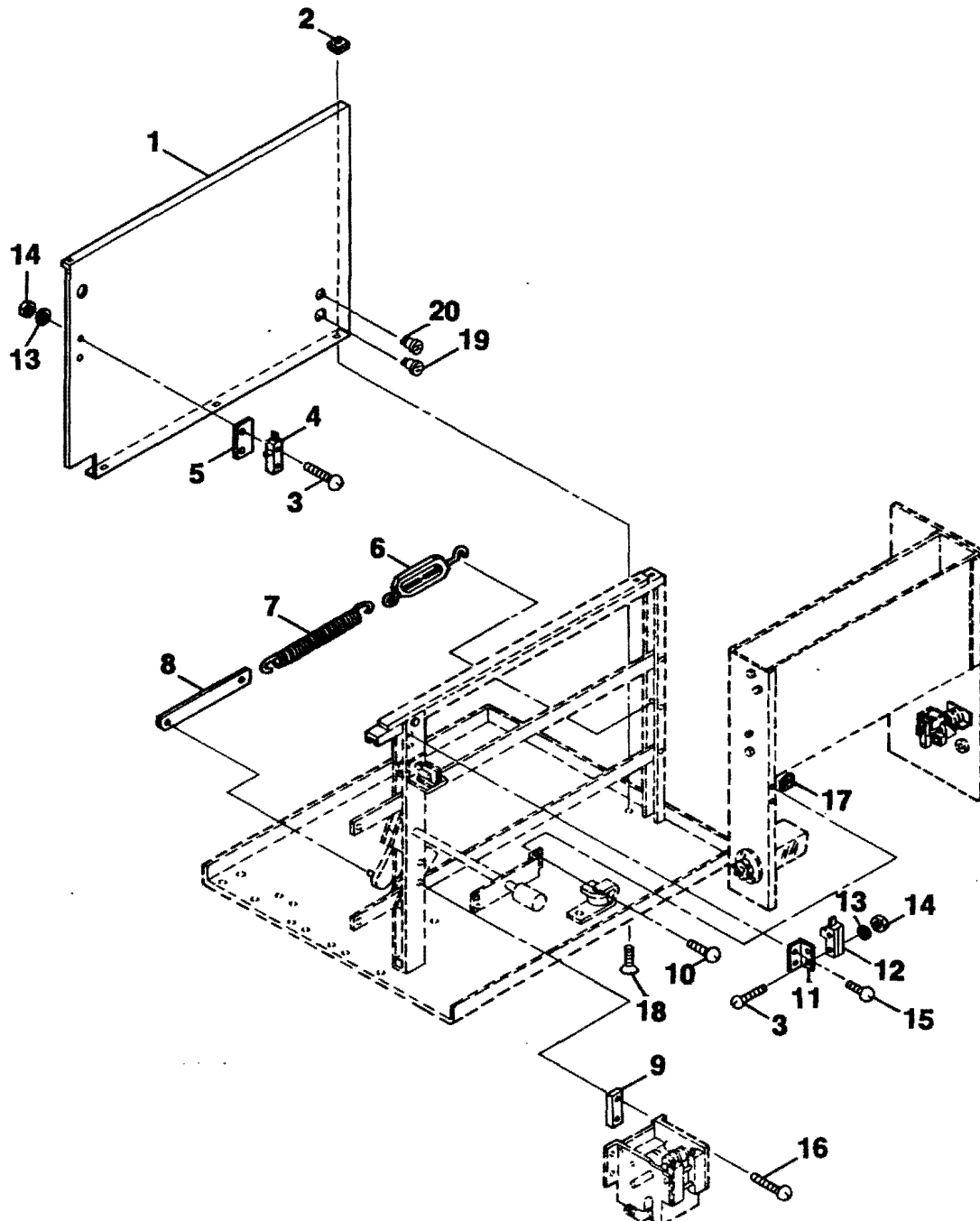


Figure 6. Door Locking and Partition Parts

DOOR LOCKING AND PARTITION PARTS

INDEX	PART NO.	DESCRIPTION
1.	A65-004554	Partition
2.	A32-004086	Nut—Retainer
3.	XD1-090082	Screw—#6-32 x 7/8" round head machine
4.	A62-004468	Switch—Door Open
5.	A65-004651	Insulation—Limit Switch
6.	A62-004462	Turnbuckle
7.	A63-004492	Spring
8.	A65-022393	Linkage—Spring
9.	A65-004609	Spacer—Main Valve
10.	XD1-090100	Screw—#10-24 x 3/8" round head machine
11.	A65-004556	Bracket—Interlock Switch
12.	A65-004545	Switch—Door Interlock
13.	XD3-090377	Lockwasher—Internal tooth
14.	XD2-090403	Nut—#6-32 hex
15.	XD1-090099	Screw—#10-24 x 1/4" round head machine
16.	XD1-090101	Screw—#10-24 x 1/2" round head machine
17.	A32-004076	Speednut
18.	XD1-090141	Screw—#10-24 x 1/2" flat head machine

BUSHING ASSEMBLY A36-012755

19.	A32-004074	Bushing—Terminal
20.	A32-004075	Tab—Terminal

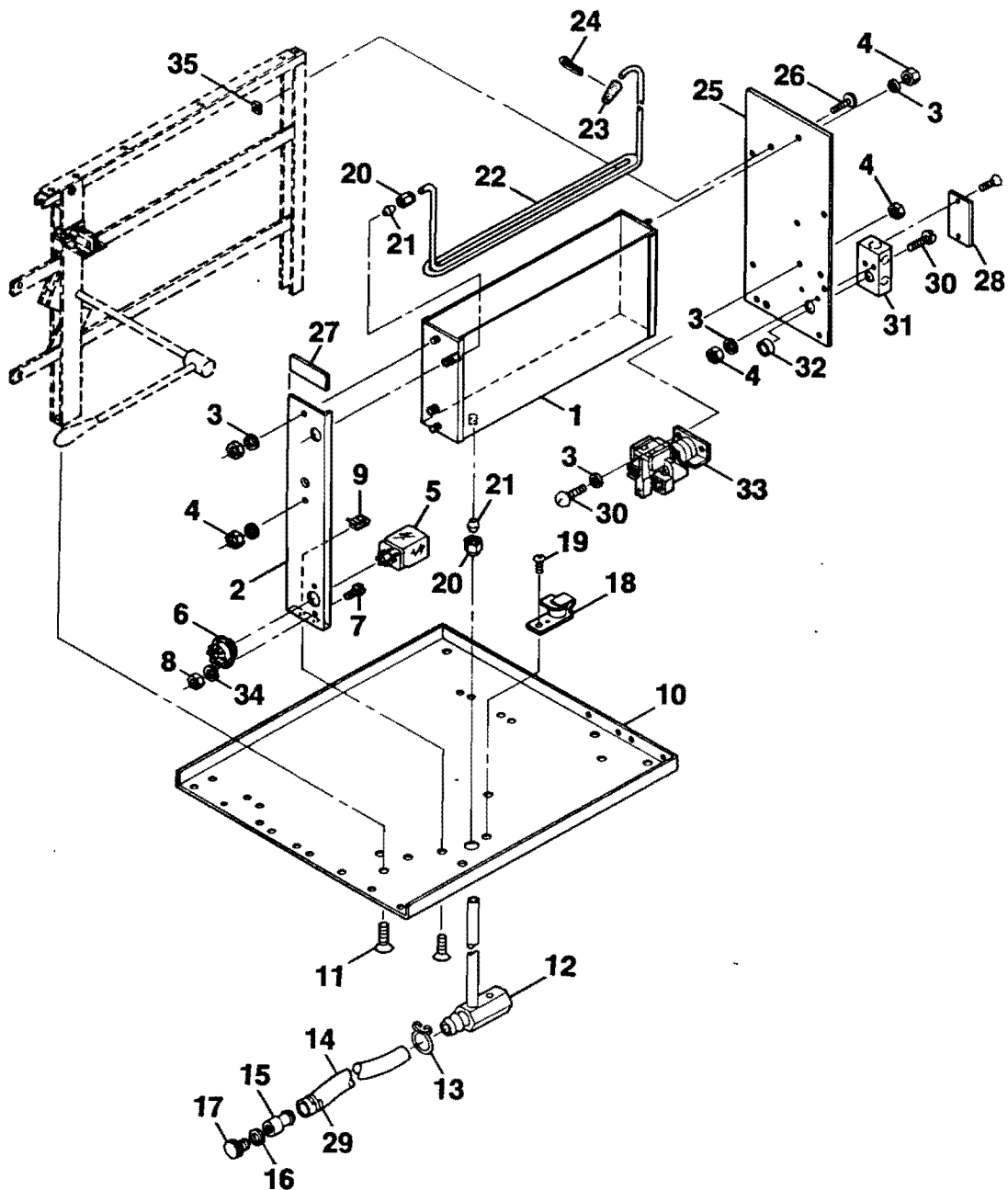


Figure 7. Reservoir Parts

RESERVOIR PARTS

INDEX	PART NO.	DESCRIPTION
*1.	A66-004769	Reservoir Assembly
2.	A65-004558	Support—Reservoir Front
3.	XD3-090371	Lockwasher—Spring
4.	XB2-090056	Nut—#10-24 hex
5.	A62-004463	Relay—Latching
6.	B02-004837	Socket—Relay
7.	XD1-090078	Screw—#6-32 x 3/8" round head machine
8.	XD2-090403	Nut—#6-32 hex
9.	A32-004076	Speednut
10.	A65-004552	Base
11.	XD1-090141	Screw—#10-24 x 1/2" flat head machine
*12.	A66-004787	Adapter and Tube Assembly
13.	G13-005916	Clip—Hose Retaining
14.	A65-004643	Hose—Drain
15.	A65-004599	Nozzle—Drain Hose
16.	C02-004864	O-Ring—Valve Plunger
17.	A65-004598	Cap—Drain Hose
18.	A62-004491	Buzzer
19.	XD1-090099	Screw—#10-24 x 1/4" round head machine
20.	A22-004062	Nut—Compression
21.	A22-004058	Sleeve—Compression
22.	A65-004630	Tubing—Condenser
23.	A64-004543	Filter— Fill Line Vent Line
24.	XE1-090454	Cotter Pin
25.	A65-004690	Support—Reservoir Rear
26.	XD1-090300	Screw—#10-24 x 3/8" binder head machine
27.	A65-004667	Gasket—Maintenance
28.	RD2-008174	Cover—Utility Box
29.	G13-005929	Spring—Hose Retainer
30.	XD1-090100	Screw—#10-24 x 3/8" slotted round head machine
31.	A64-004547	Junction Box
32.	A62-004475	Bushing—Panel
33.	A62-011081	Electrical Contactor Relay
34.	XD3-090380	Lockwasher—Internal tooth
35.	A32-004086	Nut—Retainer

*THESE PARTS SOLD ONLY AS ASSEMBLIES

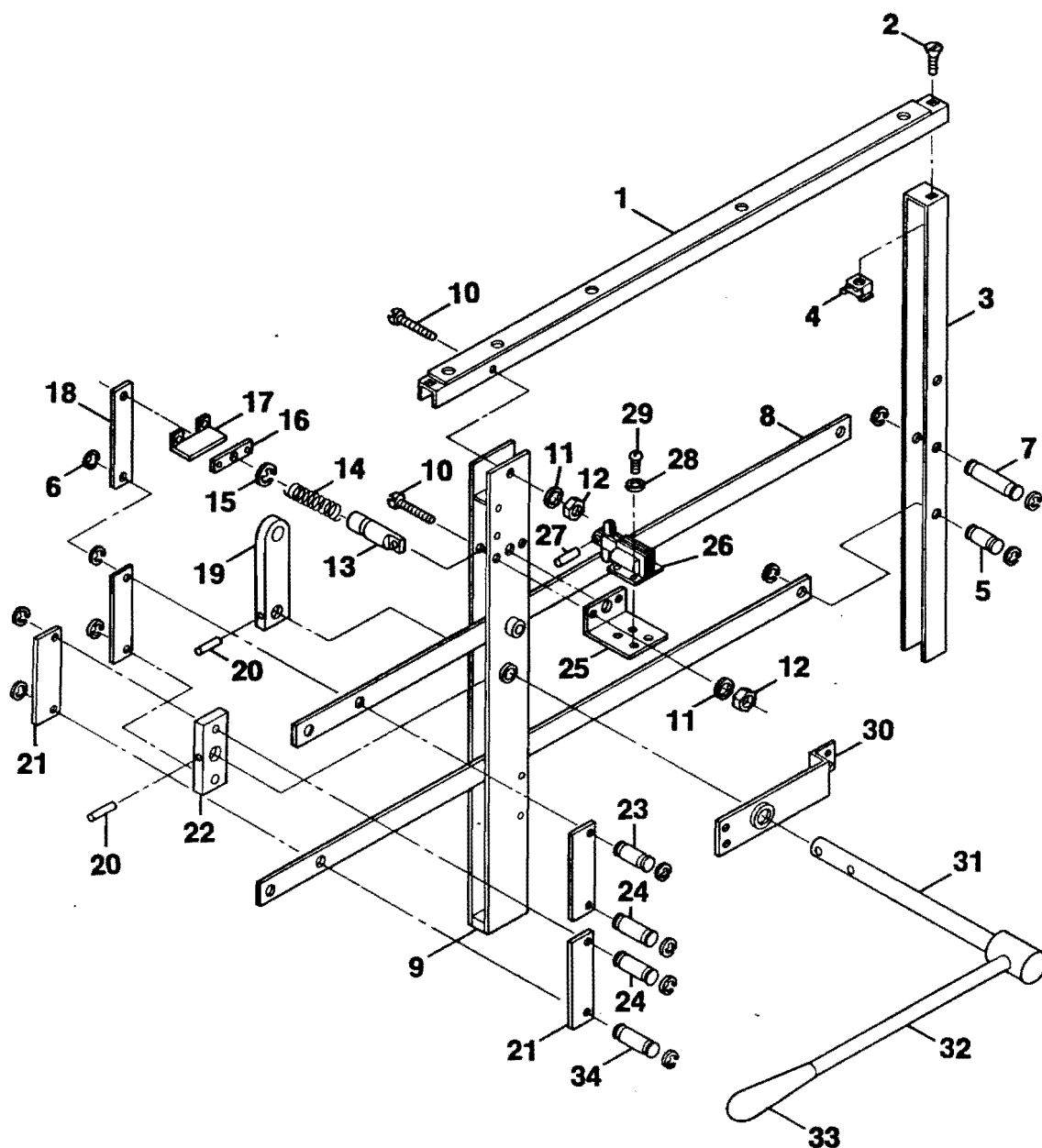


Figure 8. Door Locking Mechanism Parts

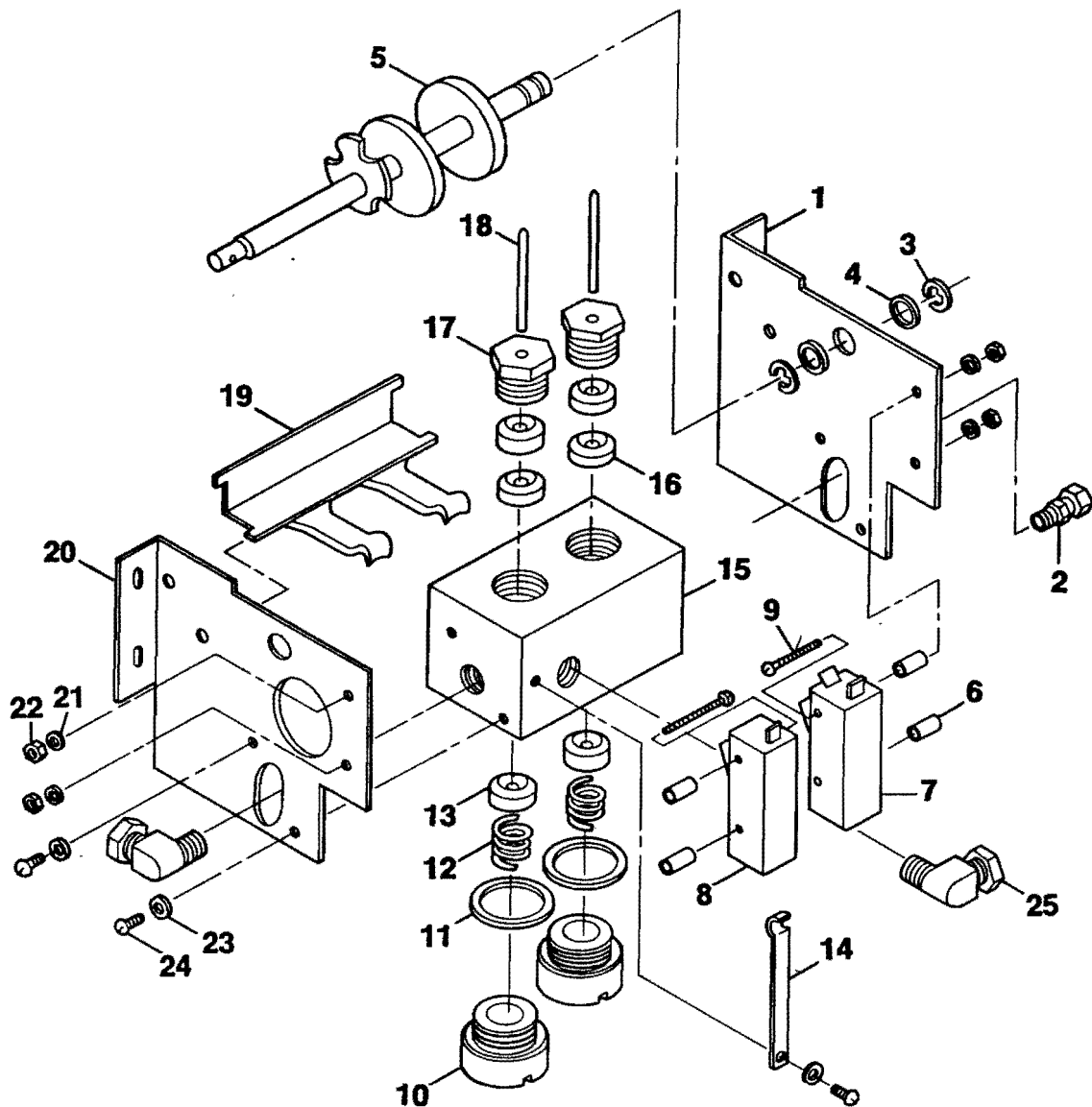


Figure 9. Main Valve Assembly

DOOR LOCKING ASSEMBLY A66-004809

INDEX	PART NO.	DESCRIPTION
*1.	A66-004784	Door Lock Brace Assembly
2.	XD1-090141	Screw—#10-24 x 1/2" flat head machine
3.	A65-004563	Support—Linkage
4.	A32-004086	Retainer—Nut
5.	A65-004615	Pin—Rear Main Door
6.	A02-004001	Ring—Retaining
7.	A65-004616	Pin—Rear Spring
8.	A65-004570	Linkage—Main Door
*9.	A66-004767	Door Locking Bracket Assembly
10.	XD1-090108	Screw—#10-24 x 1-3/4" round head machine
11.	XD3-090371	Lockwasher—Split
12.	XB2-090056	Nut—#10-24 hex
13.	A65-004694	Pin—Door Lock Stop
14.	A63-004525	Spring—Door Interlock
15.	A62-015374	E-Ring
16.	A65-004611	Guide
17.	A65-004666	Spacer
18.	A65-004574	Door—Lock Stop
*19.	A66-004781	Spring Arm Assembly
20.	A62-004466	Pin—Roll
21.	A65-004568	Linkage—Door Lock Cam
22.	A65-004571	Cam—Door Lock
23.	A65-004608	Pin—Door Lock Stop Linkage
24.	A65-004628	Pin—Cam
25.	A65-004695	Bracket—Solenoid
26.	A62-004489	Solenoid
27.	M02-007913	Pin—Stop
28.	XD3-090377	Lockwasher—Internal tooth
29.	XD1-090076	Screw—#6-32 x 1/4" round head machine
*30.	A66-004766	Door Lock Shaft Bracket Assembly
*31.	A66-004763	Hub & Shaft Assembly
32.	A65-004605	Lever
33.	A12-004043	Handle
34.	A65-004645	Pin—Door Lock Cam

DOOR LOCKING MECHANISM FIELD INSTALLATION KIT
 (Serial Nos. 1002 to 1036) A69-016410

DOOR LOCKING MECHANISM FIELD INSTALLATION KIT
 (Serial Nos. 1037 to 1654) A69-016411

*THESE PARTS SOLD ONLY AS ASSEMBLIES

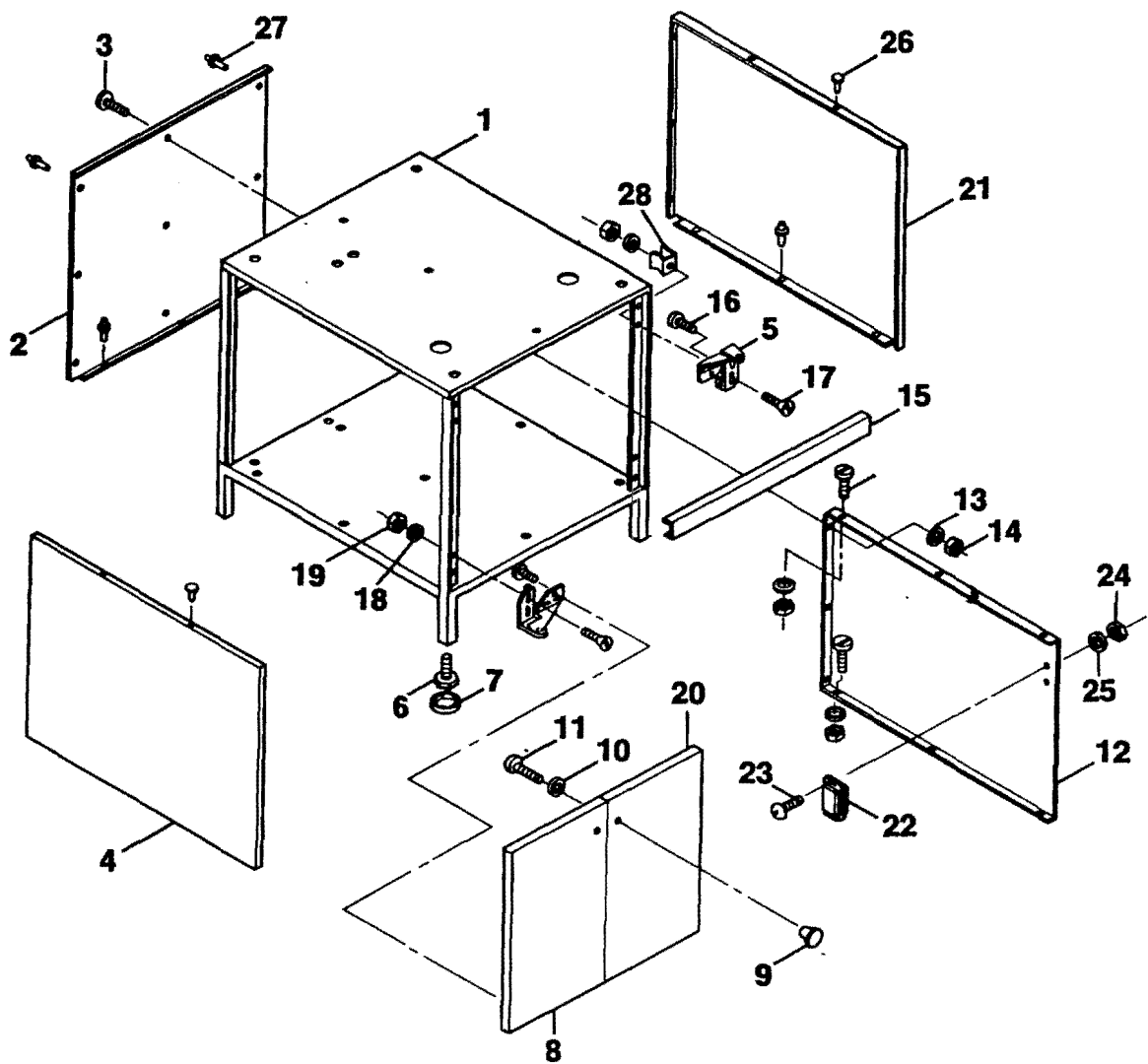


Figure 10. Magna-Clave Stand

MAIN VALVE ASSEMBLY A66-004801

INDEX	PART NO.	DESCRIPTION
1.	A35-004168	Bracket—Valve (Right)
2.	A02-004006	Union—Valve
3.	A02-004001	Ring—Valve Retaining
4.	A15-004054	Washer—Plunger Spacer
*5.	A66-004761	Cam and Shaft
6.	A35-004192	Spacer—Switch
7.	A32-004079	Switch—Function
8.	A32-004073	Switch—Power
9.	XD1-090085	Screw—#6-32 x 1-1/2" round head machine
10.	A05-004030	Cap—Main Valve
11.	A02-004000	O-Ring—Main Valve
12.	A03-004013	Spring—Main Valve
*13.	A06-004039	Button and Retainer
14.	A35-004231	Arm—Locator
*15.	A36-004310	Valve Body and Seat (Repair only)
16.	A02-004002	Packing Ring—Main Valve
17.	A05-004027	Nut—Main Valve Packing
18.	A05-004028	Stem—Main Valve
*19.	A36-004284	Valve Arm
20.	A35-004176	Bracket—Valve (Left)
21.	XD3-090377	Lockwasher—Internal tooth
22.	XD2-090403	Nut—#6-32 steel hex
23.	XD3-090371	Lockwasher—Spring
24.	XD1-090100	Screw—#10-24 x 3/8" slotted round head machine
25.	A22-004060	Elbow

*THESE PARTS SOLD ONLY AS ASSEMBLIES

MAGNA-CLAVE STAND A67-004835

INDEX	PART NO.	DESCRIPTION
*1.	A66-004832	Frame Assembly
2.	A65-004737	Back
3.	XD1-090300	Screw—#10-24 x 3/8" binder head machine
4.	A65-004735	Side—Left
5.	A64-004550	Hinge
6.	A62-004483	Foot—Leveling
7.	A62-004484	Cap—Foot
*8.	A66-004833	Left Door Assembly
9.	A62-004481	Knob
10.	XD3-090380	Lockwasher—Internal tooth
11.	XD1-090113	Screw—#10-32 x 3/4" round head machine
12.	A65-004751	Partition
13.	XD3-090371	Lockwasher—Spring
14.	XB2-090056	Nut—#10-24 hex
15.	A65-004738	Trim
16.	XD1-090347	Screw—#10-24 x 3/8" pan head sheet metal
17.	XD1-090595	Screw—#8-32 x 7/16" flat head machine
18.	XD3-090379	Lockwasher—Internal tooth
19.	XD2-090406	Nut—#8-32 hex
*20.	A66-004834	Right Door Assembly
21.	A65-004736	Side—Right
22.	G12-005899	Catch—Dual Magnetic
23.	XD1-090078	Screw—#6-32 x 3/8" round head machine
24.	XD2-090403	Nut—#6-32 hex
25.	XD3-090377	Lockwasher—Internal tooth
26.	XM2-090485	Rivet—Pop
27.	A62-004482	Rivet—Drive
28.	G02-005843	Clamp

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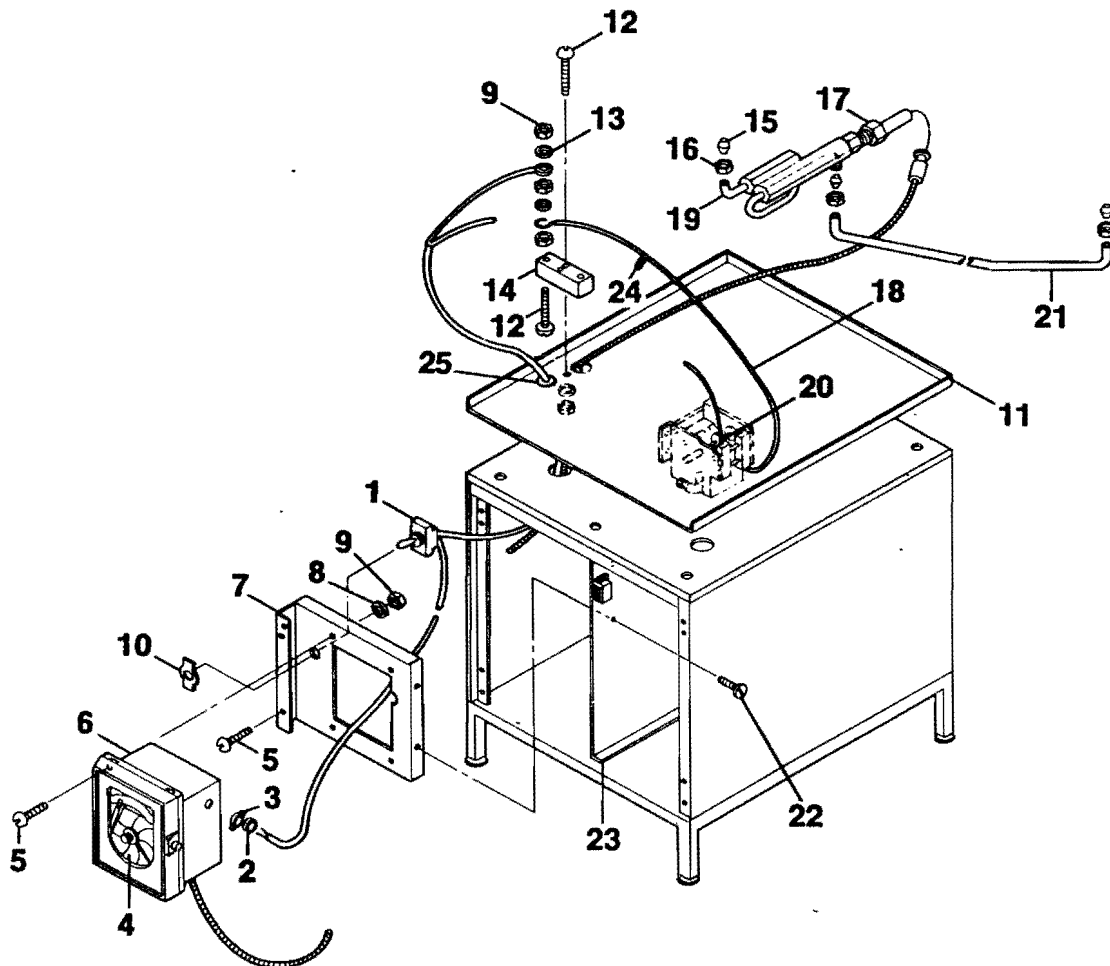


Figure 11. Temperature Recorder

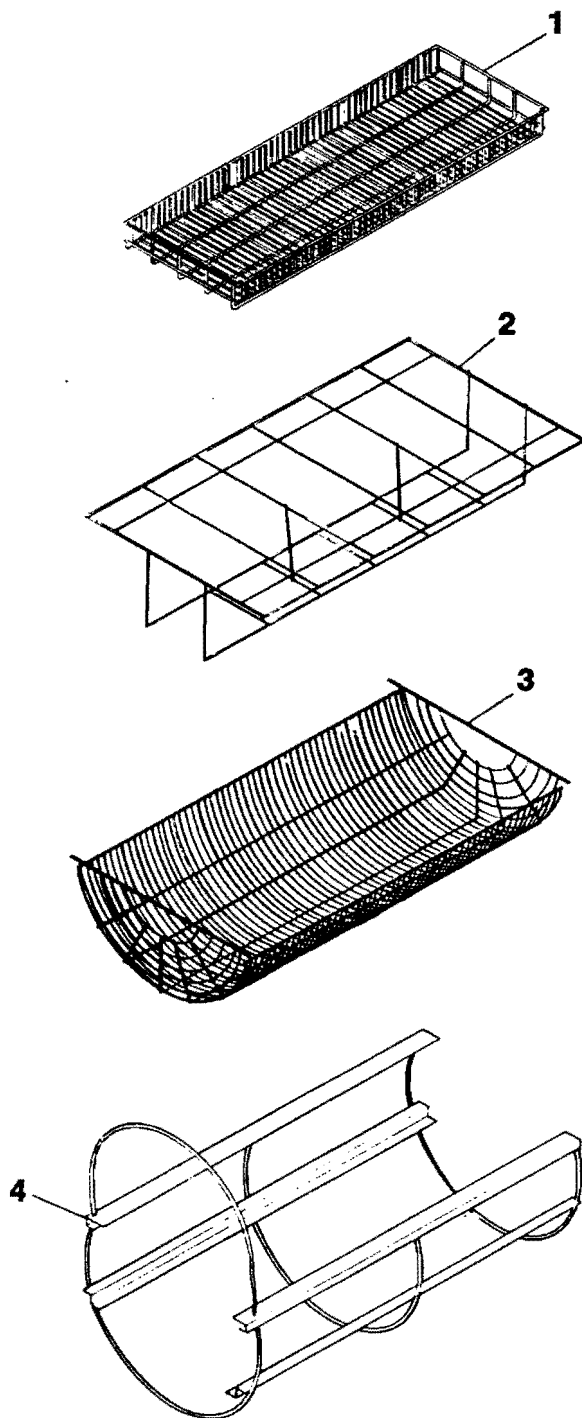


Figure 12. Trays and Tray Slide Assembly

OPTIONAL TEMPERATURE RECORDER ASSEMBLY A67-012992

INDEX	PART NO.	DESCRIPTION
*1.	A66-012981	Wire and Switch Assembly
2.	A62-012983	Bushing—Strain Relief
3.	A62-012710	Adapter
4.	A63-013009	Recording Charts—Box of 50 (Serial Nos. 2783 & up) (Repair only)
	A62-004471	Recording Charts—Box of 100 (Serial Nos. 1000-2782) (Repair only)
5.	XD1-090091	Screw—#8-32 x 1/2" round head machine
6.	A63-012733	Temperature Recorder
7.	A65-012985	Bracket—Recorder
8.	XD3-090378	Lockwasher—Internal tooth
9.	XB2-090054	Nut—#8-32 hex
10.	G12-005902	Plate
11.	A65-004678	Base
12.	XD1-090095	Screw—#8-32 x 1" round head machine
13.	XB3-090046	Washer—Flat
14.	A03-004015	Block—Terminal
15.	A22-004058	Sleeve—Compression
16.	A22-004062	Nut—Compression
*17.	A66-014715	Union, Packing and Nut Assembly
18.	A65-004789	Wire Extension
*19.	A66-012982	Well Thermometer Assembly
20.	A32-004078	Terminal—Duplex
21.	A65-012984	Tube—Air
22.	XD1-090348	Screw—#10-24 x 3/8" pan head sheet metal
23.	A65-004679	Partition
24.	RD2-017725	Wire Tie
25.	F12-005679	Line Cord Bushing

FIELD INSTALLATION KIT FOR TEMPERATURE RECORDER A69-013217

INSTALLATION INSTRUCTIONS FOR TEMPERATURE RECORDER YL2-094072

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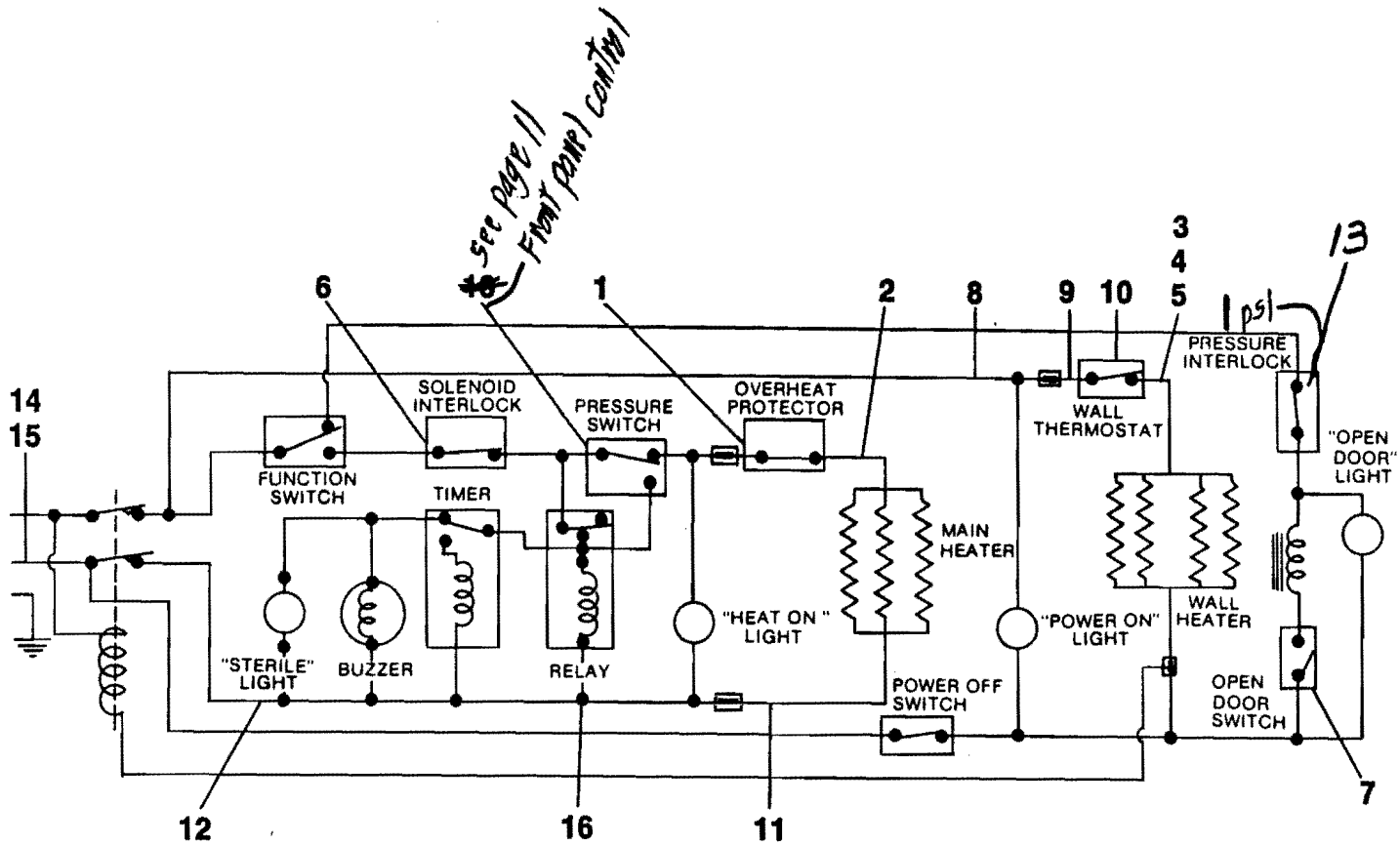


TRAYS AND TRAY SLIDE ASSEMBLY

- 1. A64-018385 Tray—Lower
- 2. A64-018955 Rack—Bedpan
- *3. A66-004802 Basket Tray Assembly
- *4. A66-004806 Trayslide Assembly

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Figure 13. Electrical Parts and Wiring



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ELECTRICAL PARTS AND WIRING

INDEX	PART NO.	DESCRIPTION
1.	A63-004505	Thermostat—Overheat Protector
2.	A65-004773	Wire—Terminal to Wall Heater
3.	A65-004642	Wire—Wall Heater
4.	A66-004811	Wire—Wall Heater
5.	A66-004812	Wire—Wall Heater
6.	A64-004545	Switch—Door Interlock
7.	A62-004468	Switch—Door Open
8.	A65-004775	Wire—Wall Heater Power
9.	A65-004774	Wire—Terminal to Thermostat
10.	A64-004527	Thermostat—Wall
11.	A65-004772	Wire—Terminal to Main Heater
12.	A65-004776	Wire—Main Power
13.	A66-012792	Switch—Pressure
14.	A65-004688	Wire—Power Interconnect
*15.	A66-004799	Wire Assembly—Power Interconnect
*16.	A66-004826	Wire Harness Assembly

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NOTES